

# Annual Dams Safety Standards Reports 2023

28 March 2024





Cor	ntents	PDF Page
1.	Avon Dam	4
2.	Bendeela Pondage	18
3.	Blowering Dam	32
4.	Brogo Dam	46
5.	Broughtons Pass Weir	60
6.	Burrendong Dam	74
7.	Burrinjuck Dam	88
8.	Carcoar Dam	102
9.	Cascade Dam 1	116
10.	Cascade Dam 2	130
11.	Cascade Dam 3	144
12.	Cataract Dam	158
13.	Chaffey Dam	172
14.	Copeton Dam	186
15.	Cordeaux Dam	200
16.	Fitzroy Falls Dam	214
17.	Glenbawn Dam	228
18.	Glennies Creek Dam	242
19.	Glenquarry Cut Control Structure	256
20.	Greaves Creek Dam	270
21.	Hume Dam	280
<b>22</b> .	Kangaroo Pipeline Control Structure	294
23.	Keepit Dam	308
24.	Lake Medlow Dam	322



25.	Lostock Dam	336
26.	Menindee Lakes	350
27.	Nepean Dam	364
28.	Oberon Dam	378
29.	Pindari Dam	392
30.	Prospect Dam	406
31.	Rydal Dam	420
32.	Split Rock Dam	434
33.	Tallowa Dam	448
34.	Toonumbar Dam	462
35.	Upper Cordeaux No 2 Dam	476
36.	Warragamba Dam	490
37.	Windamere Dam	504
38.	Wingecarribee Dam	518
39.	Woodford Creek Dam	532
40.	Woronora Dam	546
<b>4</b> 1.	Wyangala Dam	560

## **Annual Safety Standards Report**

**Dams Safety NSW** 

## **Avon Dam - 5**

**Avon River near Bargo** 

**Date of report:** 27/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

#### Section 1 - Declared dam identification details

Question	Answer
Dam name	Avon Dam
Dam location	Avon River near Bargo
Type of dam	Concrete arch
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



#### **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Extreme
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Robin Fell/Mark Foster
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/03/2019
Date of next planned consequence category assessment	31/12/2034
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

#### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

#### Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/05/2020
Individual risk rating of the dam	1.66x10-8
Societal risk rating of the dam	1.74x10-6
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)	Peter Ballantine (GHD Pty Ltd)
Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. <u>Regulation</u>, <u>clause 19</u>

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/05/2020
Planned date for next safety review	31/12/2034

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. **Regulation**, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	16/08/2023
Planned date for next 'theoretical classroom' emergency exercise	1/08/2026

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	25/11/2021
Planned date for next practical emergency exercise	1/07/2024



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	2/10/2023
Date of last Operations and Maintenance Plan review	7/03/2024
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

#### **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



#### **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	protect
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

# Bendeela Pondage - 18 off

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

#### Section 1 - Declared dam identification details

Question	Answer
Dam name	Bendeela Pondage
Dam location	Off
Type of dam	Embankment
Main purpose of dam	Hydroelectric
Other	
Is the dam built on a river, stream or watercourse?	No
Name of dam owner	WaterNSW
ACN number	21147934787



#### **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Significant
Has an independent review been done?	Yes
Name of independent reviewer	
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/08/2019
Date of next planned consequence category assessment	31/12/2034
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

#### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

#### Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/06/2020
Individual risk rating of the dam	4.4x10-10
Societal risk rating of the dam	4.36x10-8
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)	Peter Ballantine (GHD Pty Ltd)
Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. <u>Regulation</u>, <u>clause 19</u>

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/06/2020
Planned date for next safety review	31/12/2034

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	19/07/2022
Planned date for next 'theoretical classroom' emergency exercise	30/07/2025

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	12/10/2022
Planned date for next practical emergency exercise	31/10/2027



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/12/2023
Date of last Operations and Maintenance Plan review	27/10/2021
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

#### **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



#### **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

	1
Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mital
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

# **Blowering Dam - 23**

**Tumut River near Tumut** 

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

#### Section 1 - Declared dam identification details

Question	Answer
Dam name	Blowering Dam
Dam location	Tumut River near Tumut
Type of dam	Embankment
Main purpose of dam	Irrigation
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



#### **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Extreme
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/09/2012
Date of next planned consequence category assessment	31/12/2024
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

#### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

#### Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/01/2014
Individual risk rating of the dam	1.79x10-8
Societal risk rating of the dam	3.91x10-5
Date of next planned risk report	31/08/2024



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

David Evans (GHD Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- · the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/01/2014
Planned date for next safety review	31/12/2027

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. **Regulation**, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	27/10/2020
Planned date for next 'theoretical classroom' emergency exercise	1/08/2024

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	4/05/2023
Planned date for next practical emergency exercise	1/05/2027



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/10/2023
Date of last Operations and Maintenance Plan review	5/04/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

	1
Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	preta
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

## Brogo Dam - 34

**Brogo River near Bega** 

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

### Section 1 - Declared dam identification details

Question	Answer
Dam name	Brogo Dam
Dam location	Brogo River near Bega
Type of dam	Rockfill
Main purpose of dam	Irrigation
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Answer
High B
Yes
Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald
Yes
7/09/2012
31/12/2027
No



How was this checked?	Dam owner local knowledge	
Other		

## Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- · when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/01/2014
Individual risk rating of the dam	3.42E-07
Societal risk rating of the dam	4.56E-06
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

David Evans (GHD Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- · the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/01/2014
Planned date for next safety review	31/12/2027

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	27/10/2020
Planned date for next 'theoretical classroom' emergency exercise	1/08/2024

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	15/02/2022
Planned date for next practical emergency exercise	1/08/2024



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/12/2023
Date of last Operations and Maintenance Plan review	8/06/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

	1
Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitabay
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

## **Broughtons Pass Weir - 37**

**Cataract Weir near Wilton** 

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

### Section 1 - Declared dam identification details

Question	Answer
Dam name	Broughtons Pass Weir
Dam location	Cataract Weir near Wilton
Type of dam	Concrete gravity
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Significant
Has an independent review been done?	Yes
Name of independent reviewer	
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/3/2019
Date of next planned consequence category assessment	31/12/2034
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

## Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/05/2020
Individual risk rating of the dam	0
Societal risk rating of the dam	5.40x10-6
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)	Peter Ballantine (GHD Pty Ltd)
Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. <u>Regulation</u>, <u>clause 19</u>

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review <b>Regulation</b> , subclause 20(2)	1/05/2020
Planned date for next safety review	31/12/2034

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise <u>Regulation</u> , <u>subclause 22(1)</u>	16/08/2023
Planned date for next 'theoretical classroom' emergency exercise	1/08/2026

## For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	No
Date of last practical emergency exercise	
Planned date for next practical emergency exercise	



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/12/2023
Date of last Operations and Maintenance Plan review	20/10/2021
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitabas
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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# **Annual Safety Standards Report**

**Dams Safety NSW** 

# **Burrendong Dam - 43**

**Macquarie River near Wellington** 

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

### Section 1 - Declared dam identification details

Question	Answer
Dam name	Burrendong Dam
Dam location	Macquarie River near Wellington
Type of dam	Embankment
Main purpose of dam	Irrigation
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



# **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Extreme
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/09/2012
Date of next planned consequence category assessment	31/12/2027
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

## Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

# Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/01/2014
Individual risk rating of the dam	4.68 x10-8
Societal risk rating of the dam	2.05 x10-5
Date of next planned risk report	31/12/2025



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

David Evans (GHD Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- · the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/01/2014
Planned date for next safety review	31/12/2027

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. **Regulation**, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	16/11/2021
Planned date for next 'theoretical classroom' emergency exercise	1/11/2024

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	15/11/2023
Planned date for next practical emergency exercise	30/11/2025



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/12/2023
Date of last Operations and Maintenance Plan review	14/03/2024
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

# **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



# **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitabas
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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# **Annual Safety Standards Report**

**Dams Safety NSW** 

# Burrinjuck Dam - 44

**Murrumbidgee River near Yass** 

**Date of report:** 27/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

### Section 1 - Declared dam identification details

Question	Answer
Dam name	Burrinjuck Dam
Dam location	Murrumbidgee River near Yass
Type of dam	Concrete gravity
Main purpose of dam	Irrigation
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



# **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Extreme
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/09/2012
Date of next planned consequence category assessment	31/12/2027
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

## Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

# Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- · when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	30/8/2023
Individual risk rating of the dam	4.28x10-7
Societal risk rating of the dam	7.48x10-6
Date of next planned risk report	31/12/2027



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

2023 review - Dene Jamieson (Director of Jamieson Dams & Civil Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

2012 quantitative report - Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- · the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/01/2014
Planned date for next safety review	31/12/2027

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	27/10/2020
Planned date for next 'theoretical classroom' emergency exercise	1/08/2024

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	4/05/2023
Planned date for next practical emergency exercise	1/05/2025



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	01/12/2023
Date of last Operations and Maintenance Plan review	14/03/2024
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

# **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)	
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>	
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board	
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>	
Government department	Secretary	
Individual	Individual	



# **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitaka
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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# **Annual Safety Standards Report**

**Dams Safety NSW** 

# Carcoar Dam - 49

**Belubula River near Carcoar** 

**Date of report:** 27/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

### Section 1 - Declared dam identification details

Question	Answer
Dam name	Carcoar Dam
Dam location	Belubula River near Carcoar
Type of dam	Concrete arch
Main purpose of dam	Irrigation
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



# **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Extreme
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/12/2012
Date of next planned consequence category assessment	31/12/2027
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

## Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

# Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- · when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	30/08/2023
Individual risk rating of the dam	3.39x10-8
Societal risk rating of the dam	2.53x10-6
Date of next planned risk report	31/12/2027



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

2023 review - Dene Jamieson (Director of Jamieson Dams & Civil Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

2012 quantitative report - Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- · the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/01/2014
Planned date for next safety review	31/12/2027

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. **Regulation**, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise <u>Regulation</u> , <u>subclause 22(1)</u>	28/06/2023
Planned date for next 'theoretical classroom' emergency exercise	1/06/2024

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	29/06/2023
Planned date for next practical emergency exercise	1/06/2028



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/10/2023
Date of last Operations and Maintenance Plan review	7/03/2024
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitabal
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

## Cascade Dam No 1 - 50

Cascade Creek near Katoomba

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

#### Section 1 - Declared dam identification details

Question	Answer
Dam name	Cascade Dam No 1
Dam location	Cascade Creek near Katoomba
Type of dam	Concrete gravity
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Answer
High C
Yes
Brian Cooper/Robin Fell/Mark Foster
Yes
1/03/2019
31/12/2034
No



How was this checked?	Dam owner local knowledge	
Other		

#### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/06/2020
Individual risk rating of the dam	5.58x10-9
Societal risk rating of the dam	4.95x10-6
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off	Peter Ballantine (GHD Pty
the risk report (if risk report recommenced after 1 July 2022)	Ltd)
Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. <u>Regulation</u>, <u>clause 19</u>

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/06/2020
Planned date for next safety review	31/12/2034

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer
Name of independent competent reviewed and their organisation	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. **Regulation**, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	4/06/2020
Planned date for next 'theoretical classroom' emergency exercise	1/05/2025

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	31/05/2023
Planned date for next practical emergency exercise	1/05/2028



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/12/2023
Date of last Operations and Maintenance Plan review	11/05/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitchel
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

## Cascade Dam No 2 - 51

**Cascade Creek near Katoomba** 

**Date of report:** 27/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

#### Section 1 - Declared dam identification details

Question	Answer
Dam name	Cascade Dam No 2
Dam location	Cascade Creek near Katoomba
Type of dam	Embankment
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	High C
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Robin Fell/Mark Foster
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/03/2019
Date of next planned consequence category assessment	31/12/2034
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No
Has the number of people likely to be affected by a dam failure changed since the last	



How was this checked?	Dam owner local knowledge	
Other		

#### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/06/2020
Individual risk rating of the dam	6.49E-07
Societal risk rating of the dam	2.56x10-5
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off	Peter Ballantine (GHD Pty
the risk report (if risk report recommenced after 1 July 2022)	Ltd)
Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. <u>Regulation</u>, <u>clause 19</u>

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/06/2020
Planned date for next safety review	31/12/2034

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer
Name of independent competent reviewed and their organisation	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. **Regulation**, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	4/06/2020
Planned date for next 'theoretical classroom' emergency exercise	1/05/2025

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	31/05/2023
Planned date for next practical emergency exercise	1/05/2028



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/12/2023
Date of last Operations and Maintenance Plan review	30/10/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

	1
Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	preta
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

## Cascade Dam No 3 - 52

Cascade Creek near Katoomba

**Date of report:** 27/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

## Section 1 - Declared dam identification details

Question	Answer
Dam name	Cascade Dam No 3
Dam location	Cascade Creek near Katoomba
Type of dam	Embankment
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Answer
High B
Yes
Brian Cooper/Robin Fell/Mark Foster
Yes
1/03/2019
31/12/2034
No



How was this checked?	Dam owner local knowledge	
Other		

## Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/06/2020
Individual risk rating of the dam	4.31x10-7
Societal risk rating of the dam	6.41x10-6
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)	Peter Ballantine (GHD Pty Ltd)
Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. <u>Regulation</u>, <u>clause 19</u>

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/06/2020
Planned date for next safety review	31/12/2034

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. **Regulation**, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	4/06/2020
Planned date for next 'theoretical classroom' emergency exercise	1/05/2025

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	31/05/2023
Planned date for next practical emergency exercise	1/05/2028



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/12/2023
Date of last Operations and Maintenance Plan review	2/02/2024
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitchel
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

# Cataract Dam - 54

**Cataract River near Bulli** 

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

## Section 1 - Declared dam identification details

Question	Answer
Dam name	Cataract Dam
Dam location	Cataract River near Bulli
Type of dam	Concrete gravity
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Extreme
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Robin Fell/Mark Foster
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/03/2019
Date of next planned consequence category assessment	31/12/2034
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

## Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	Yes
Do you know the date of your last risk report?	Yes
Date of last risk report	12/05/2023
Individual risk rating of the dam	1.2x10-4
Societal risk rating of the dam	1.97x10-3
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

Lorreta Agnew (AECOM)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Gavan Hunter, David Bowles (independent contractors) and Marius Jonker (Aurecon)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review <b>Regulation</b> , subclause 20(2)	1/05/2020
Planned date for next safety review	31/12/2034

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	16/08/2023
Planned date for next 'theoretical classroom' emergency exercise	28/02/2025

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	18/08/2022
Planned date for next practical emergency exercise	1/07/2024



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	06/10/2023
Date of last Operations and Maintenance Plan review	13/10/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitotal
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

# Chaffey Dam - 59

**Peel River near Tamworth** 

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

## Section 1 - Declared dam identification details

Question	Answer
Dam name	Chaffey Dam
Dam location	Peel River near Tamworth
Type of dam	Embankment
Main purpose of dam	Irrigation
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Extreme
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/09/2012
Date of next planned consequence category assessment	31/12/2027
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

## Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/01/2014
Individual risk rating of the dam	7.91 x10-8
Societal risk rating of the dam	1.08 x10-5
Date of next planned risk report	31/12/2024



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

David Evans (GHD Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/01/2014
Planned date for next safety review	31/12/2027

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	1/06/2022
Planned date for next 'theoretical classroom' emergency exercise	1/06/2025

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	11/11/2021
Planned date for next practical emergency exercise	30/11/2026



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/06/2023
Date of last Operations and Maintenance Plan review	11/09/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

# **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



# **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

	1
Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	printer
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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# **Annual Safety Standards Report**

**Dams Safety NSW** 

# **Copeton Dam - 77**

Gwydir River near Inverell

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

## Section 1 - Declared dam identification details

Question	Answer
Dam name	Copeton Dam
Dam location	Gwydir River near Inverell
Type of dam	Embankment
Main purpose of dam	Irrigation
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



# **Section 2 - Dams safety standards**

### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Extreme
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/09/2012
Date of next planned consequence category assessment	31/12/2027
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

## Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

# Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- · when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/11/2014
Individual risk rating of the dam	8.57 x10-5
Societal risk rating of the dam	1.91 x10-5
Date of next planned risk report	31/12/2025



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)	Alex Duwell (WaterNSW)
Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam	Mark Foster (Independent consultant)

### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. <u>Regulation</u>, <u>clause 19</u>

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- · the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/01/2014
Planned date for next safety review	31/12/2027

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	13/07/2021
Planned date for next 'theoretical classroom' emergency exercise	1/05/2024

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	17/05/2022
Planned date for next practical emergency exercise	1/05/2024



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/12/2023
Date of last Operations and Maintenance Plan review	18/12/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

# **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



# **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitabas
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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# **Annual Safety Standards Report**

**Dams Safety NSW** 

# Cordeaux Dam - 78

**Cordeaux River near Wilton** 

**Date of report:** 27/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

## Section 1 - Declared dam identification details

Question	Answer
Dam name	Cordeaux Dam
Dam location	Cordeaux River near Wilton
Type of dam	Concrete gravity
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



# **Section 2 - Dams safety standards**

### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Extreme
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Robin Fell/Mark Foster
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/03/2019
Date of next planned consequence category assessment	31/12/2034
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

## Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

# Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- · when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	16/12/2022
Individual risk rating of the dam	6.9x10-5
Societal risk rating of the dam	1.72x10-4
Date of next planned risk report	31/12/2028



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

Lorreta Agnew (AECOM)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Gavan Hunter, David Bowles (independent contractors) and Marius Jonker (Aurecon)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	16/12/2022
Planned date for next safety review	31/12/2034

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Gavan Hunter, David Bowles (independent contractors) and Marius Jonker (Aurecon)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	16/08/2023
Planned date for next 'theoretical classroom' emergency exercise	1/08/2026

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	18/08/2022
Planned date for next practical emergency exercise	1/07/2024



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/06/2023
Date of last Operations and Maintenance Plan review	2/02/2024
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

# **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



# **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitotal
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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# **Annual Safety Standards Report**

**Dams Safety NSW** 

# Fitzroy Falls Dam - 109

Yarrunga Creek near Moss Vale

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

## Section 1 - Declared dam identification details

Question	Answer
Dam name	Fitzroy Falls Dam
Dam location	Yarrunga Creek near Moss Vale
Type of dam	Embankment
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



# **Section 2 - Dams safety standards**

### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Answer
High A
Yes
Brian Cooper/Robin Fell/Mark Foster
Yes
1/08/2019
31/12/2034
No



How was this checked?	Dam owner local knowledge	
Other		

## Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/06/2020
Individual risk rating of the dam	2.7x10-5
Societal risk rating of the dam	2.77x10-4
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)	Peter Ballantine (GHD Pty Ltd)
Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. <u>Regulation</u>, <u>clause 19</u>

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/06/2020
Planned date for next safety review	31/12/2034

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. **Regulation**, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	19/07/2022
Planned date for next 'theoretical classroom' emergency exercise	1/07/2025

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	12/10/2022
Planned date for next practical emergency exercise	31/10/2027



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/12/2023
Date of last Operations and Maintenance Plan review	4/12/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitotal
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

# Glenbawn Dam - 121

**Hunter River near Scone** 

**Date of report:** 27/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

### Section 1 - Declared dam identification details

Question	Answer
Dam name	Glenbawn Dam
Dam location	Hunter River near Scone
Type of dam	Embankment
Main purpose of dam	Irrigation
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Extreme
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/09/2012
Date of next planned consequence category assessment	31/12/2027
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

## Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/01/2014
Individual risk rating of the dam	1.93x10-7
Societal risk rating of the dam	3.93x10-5
Date of next planned risk report	31/12/2025



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

David Evans (GHD Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- · the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/01/2014
Planned date for next safety review	31/12/2027

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	5/04/2023
Planned date for next 'theoretical classroom' emergency exercise	1/03/2025

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	8/06/2021
Planned date for next practical emergency exercise	30/06/2026



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/10/2023
Date of last Operations and Maintenance Plan review	22/06/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mital
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

# **Glennies Creek Dam - 124**

**Glennies Creek near Singleton** 

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

### Section 1 - Declared dam identification details

Question	Answer
Dam name	Glennies Creek Dam
Dam location	Glennies Creek near Singleton
Type of dam	Rockfill
Main purpose of dam	Irrigation
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Extreme
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/09/2012
Date of next planned consequence category assessment	31/12/2027
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

## Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/01/2014
Individual risk rating of the dam	2.62x10-7
Societal risk rating of the dam	8.63x10-5
Date of next planned risk report	31/12/2025



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

David Evans (GHD Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- · the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/01/2014
Planned date for next safety review	31/12/2027

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	5/04/2023
Planned date for next 'theoretical classroom' emergency exercise	1/03/2025

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	9/03/2022
Planned date for next practical emergency exercise	31/03/2027



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/10/2023
Date of last Operations and Maintenance Plan review	2/03/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

# **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



# **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitabay
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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# **Annual Safety Standards Report**

**Dams Safety NSW** 

# Glenquarry Cut - 125 off

**Date of report:** 27/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

## Section 1 - Declared dam identification details

Question	Answer
Dam name	Glenquarry Cut
Dam location	Off
Type of dam	Concrete gravity
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



# **Section 2 - Dams safety standards**

### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Answer
Significant
Yes
Yes
1/08/2019
31/12/2034
No



How was this checked?	Dam owner local knowledge	
Other		

# Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

# Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- · when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/06/2020
Individual risk rating of the dam	3.57x10-7
Societal risk rating of the dam	4.46x10-6
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)	Peter Ballantine (GHD Pty Ltd)
Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. <u>Regulation</u>, <u>clause 19</u>

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/06/2020
Planned date for next safety review	31/12/2034

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer	
Name of independent competent reviewed and their organisation	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)	

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. **Regulation**, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	19/07/2022
Planned date for next 'theoretical classroom' emergency exercise	1/07/2025

### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	20/07/2022
Planned date for next practical emergency exercise	31/07/2027



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/12/2023
Date of last Operations and Maintenance Plan review	25/10/2021
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

# **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



# **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitabas
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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#### (Page 1/9)

#### Page 1 of 9

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

# How to submit your Annual Dams Safety Standards Report

Use the online form below to enter information into your Annual Dams Safety Standards Report. Note: you can save your progress and resume at a later time.

Once completed and submitted, you will receive an email with an unsigned pdf copy of your Annual Dams Safety Standards Report. The PDF report then needs to be signed by the dam owner's accountable office holder(s). A digital signature can be used.

Once the report is signed by the correct office holder(s), please email to <u>info@damsafety.nsw.gov.au</u> by **31 March**.

Date of report **27/03/2024** 

#### Section 1 – Declared dam identification details

Dam name and location

131 - Greaves Creek - Greaves Creek near Blackheath

Type of dam (If a combination, then consider major type)

Concrete arch

Main purpose of dam

**Water Supply** 

Is the dam built on a river, stream or watercourse?

Yes

Name of dam owner

**WaterNSW** 

ACN number

21147934787

Name of contact person Regulation, subclause 24A (3)

**Geoff Watson** 

Position of contact person

**General Manager - Asset Planning & Delivery** 

Phone number Email address

Website address (if any)

0466314922 <u>geoff.watson@waternsw.com.au</u> www.waternsw.com.au

(Page 2/9)

Page 2 of 9

#### Section 2 – Dams safety standards

## Consequence category of dam – Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. <u>Regulation, subclause 7 (2)</u>

Dam consequence category

#### High A

For extreme and high consequence dams onlylf the consequence category is extreme or high, the consequence category assessment must be reviewed by a competent person who has not been involved in the assessment process. Regulation, subclause 7(4) Has an independent review been done?

Yes

Name of independent reviewer (must be a competent person)

#### Brian Cooper/Robin Fell/Mark Foster

Do you know the date of last consequence category Date of last consequence assessment by a competent person? Regulation, category assessment subclause 3 (1)

Yes 1/03/2019

Date next consequence category assessment planned **31/12/2034** 

Has the number of people likely to be affected by a dam failure changed since the last consequence category review?

No

How was this checked?

Dam owner local knowledge

(Page 3 /9)

Page 3 of 9

# Dam safety management system - Regulation, Part 5

The dam safety management system is a structured approach to manage all foreseeable risks relating to dam failure. It is designed to be used by the dam owner to ensure, as far as reasonably practicable, the safety of people, property and the environment is not put at risk from the dam. Regulation Part 5, clause 12

Name of individual responsible for ensuring compliance with dam safety management system. Subclause 13 (1A)

**Geoff Watson** 

Position of individual responsible for ensuring compliance with Dam Safety Management System

General Manager - Asset Planning & Delivery

Phone number Email

0466314922 geoff.watson@waternsw.com.au

# Documenting the dam safety management system

Is the dam safety management system fully documented? **Yes** 

Does the dam safety management system apply to more than one dam?

Yes

# Implementing the dam safety management system

Is the dam safety management system fully implemented at this dam? **Yes** 

(Page 4/9)

Page 4 of 9

# Dam safety management system review

Since implementing your dam safety management system, have you reviewed it?

Yes

Date of last review

31/10/2023

# Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, <u>Regulation Part 5, clause 14</u> to produce a written report on all foreseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- when required by Dams Safety NSW. Regulation, clause 15

Is your dam above the safety threshold?

No

Do you know the date of your last risk report?

Yes

Date of last risk report

1/06/2020

Individual risk rating of the dam

6.29x10-7

Societal risk rating of the dam

2.90x10-5

Date of next planned risk report

31/12/2026

Name of competent person and their organisation who signed off the risk report (if risk report commenced after 1 July 2022)

#### Peter Ballantine (GHD Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

**Brian Cooper/Robin Fell/Mark Foster (all independent contractors)** 

(Page 5 /9)

Page 5 of 9

## Other safety requirements - Regulation, Part 6

#### **Incident reporting**

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. <u>Regulation</u>, <u>clause 19</u>

Have you had any reportable incidents during the 2022 calendar year **No** 

#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person.

The declared dam owner must ensure a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Date of last safety review Regulation, subclause 20(2)

1/06/2020

Planned date for next safety review

31/12/2034

#### Page 6 of 9

# For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. <u>Regulation</u>, <u>subclause 20(6)</u>

If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation

Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Name of independent competent reviewer and their organisation

## Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Has any significant change to the configuration of the dam been made during the 2022 calendar year?

No

Is any significant change to the configuration of the dam planned?

No

#### (Page 7 /9)

#### Page 7 of 9

# **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Have you done a 'theoretical classroom' emergency exercise? **Yes** 

Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)

#### 31/05/2023

Planned date of next 'theoretical classroom' emergency exercise 1/05/2025

# For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. Regulation, subclauses 22 (3) and 22 (4)

Have you done a practical emergency exercise? **Yes** 

Date of last practical emergency exercise 6/04/2022

Planned date of next practical emergency exercise **30/04/2027** 

#### (Page 8 /9)

Page 8 of 9

#### **Design and construction**

Do not complete this section unless you are in the design, construction, commissioning, or decommissioning phase

#### Dam safety management system for design and construction

Does the dam safety management system cover dam design and construction? Regulation, Clause 12(3)

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? Regulation, clause 15(2)

# Certain work must be carried out by a person subject to a quality management system Regulation, subclause 23(1)

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

# Independent competent persons must review work involving dam design <u>Regulation</u>, clause 24

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design Regulation, clause 24

For dams still in an early design phase, have you planned an independent competent person design review?

#### **Section 3 - Additional information for Dams Safety NSW**

Date of last Emergency Plan review 1/12/2023

Date of last Operations and Maintenance Plan review **7/03/2024** 

Is last year's Annual Dams Safety Standards Report published on your website? **Yes** 

Provide the link to your report

https://www.waternsw.com.au/water-services/water-storage/dam-safety

(Page 9 /9)

Page 9 of 9

#### **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Local council	General Manager
Company	<ul><li>2 directors, or</li><li>1 director and 1 company secretary</li></ul>

Dam owner	Attesting office holder(s)
	The combined director and company secretary (Where there is only 1 director)
Statutory state- owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report:

#### **Geoff Watson**

Position of declared dam owner office holder attesting to the accuracy of this report:

#### **General Manager - Asset Planning & Delivery**

geoff.watson@waternsw.com.au

Signature:

Name of declared dam owner office report:

Position of declared dam owner office holder attesting to the accuracy of this holder attesting to the accuracy of this report:

Email geoff.watson@waternsw.com.au

Signature:

# **Annual Safety Standards Report**

**Dams Safety NSW** 

# **Hume Dam - 142**

**Murray River near Albury** 

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

## Section 1 - Declared dam identification details

Question	Answer
Dam name	Hume Dam
Dam location	Murray River near Albury
Type of dam	Concrete gravity
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	Murray-Darling Basin Authority
ACN number	



# **Section 2 - Dams safety standards**

### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Answer
Extreme
Yes
David Bowles
Yes
01/02/2022
31/12/2025
No



How was this checked?

tfa 89

Other

Local staff knowledge of affected area and no significant increase in dwelling numbers were identified by WaterNSW staff from Google Earth comparisons with dam break inundation maps.

#### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

# Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	30/05/2022
Individual risk rating of the dam	5.19x10-6
Societal risk rating of the dam	8.3x10-4
Date of next planned risk report	30/12/2025



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)	Boe Donaldson (AECOM)
Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam	David Bowles/Robin Fell/Brian Cooper (all independent contractors)

### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. <u>Regulation</u>, <u>clause 19</u>

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- · the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	30/05/2022
Planned date for next safety review	30/05/2037

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	David Bowles/Robin Fell/Brian Cooper (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	29/02/2024
Planned date for next 'theoretical classroom' emergency exercise	29/05/2026

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	05/05/2022
Planned date for next practical emergency exercise	31/05/2024



#### **Design and construction**

#### Dam safety management system for design and construction

Question **Answer** 

Does the dam safety management system cover dam design and construction? Regulation, Yes **Clause 12(3)** 

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? Regulation, clause 15(2)

Certain work must be carried out by a person subject to a quality management system. Regulation, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question **Answer** 

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed n/a or are reviewing the design **Regulation**, **clause** <u>24</u>

For dams still in an early design phase, have you planned an independent competent person

design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	15/03/2023
Date of last Operations and Maintenance Plan review	22/09/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/data/assets/pdf_file/0010/235576/WaterNSW-Annual-Dams-Safety-Standards-Report-2022.PDF

#### **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)	
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>	
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board	
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>	
Government department	Secretary	
Individual	Individual	



#### **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Matthew Ludeke
Position of declared dam owner office holder attesting to the accuracy of this report	Dam Safety Manager, Water New South Wales
Signature	MAA
Name of declared dam owner office holder attesting to the accuracy of this report	Angus Paton
Position of declared dam owner office holder attesting to the accuracy of this report	A/g Executive Director, River Management. Murray-Darling Basin Authority
Signature	Affairo

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

# Kangaroo Pipeline Control Structure - 154 Off

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

#### Section 1 - Declared dam identification details

Question	Answer	
Dam name	Kangaroo Pipeline Control Structure	
Dam location	Off	
Type of dam	Embankment	
Main purpose of dam	Hydroelectric	
Other		
Is the dam built on a river, stream or watercourse?	Yes	
Name of dam owner	WaterNSW	
ACN number	21147934787	



#### **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	High C
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/ Mark Foster/ Robin Fell
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/08/2019
Date of next planned consequence category assessment	31/12/2034
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

#### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

#### Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- · at least once every 5 years
- · when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/05/2020
Individual risk rating of the dam	1.88x10-8
Societal risk rating of the dam	3.77x10-07
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)	Peter Ballantine (GHD Pty Ltd)
Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. <u>Regulation</u>, <u>clause 19</u>

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review <b>Regulation</b> , subclause 20(2)	01/05/2020
Planned date for next safety review	31/12/2034

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer
Name of independent competent reviewed and their organisation	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. **Regulation**, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	19/07/2022
Planned date for next 'theoretical classroom' emergency exercise	1/07/2025

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	15/10/2022
Planned date for next practical emergency exercise	31/10/2027



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/12/2023
Date of last Operations and Maintenance Plan review	7/03/2024
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

#### **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



#### **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

	1
Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mittel
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

## **Keepit Dam - 156**

Namoi River near Gunnedah

**Date of report:** 27/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

#### Section 1 - Declared dam identification details

Question	Answer
Dam name	Keepit Dam
Dam location	Namoi River near Gunnedah
Type of dam	Concrete gravity
Main purpose of dam	Irrigation
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



#### **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	High A
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/09/2012
Date of next planned consequence category assessment	31/12/2027
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

#### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

#### Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- · at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/01/2014
Individual risk rating of the dam	2.28x10-6
Societal risk rating of the dam	8.34x10-5
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

David Evans (GHD Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/01/2014
Planned date for next safety review	31/12/2027

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	1/06/2022
Planned date for next 'theoretical classroom' emergency exercise	30/06/2025

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	1/06/2022
Planned date for next practical emergency exercise	1/06/2024



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/06/2023
Date of last Operations and Maintenance Plan review	11/05/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

#### **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



#### **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitotal
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

## Lake Medlow - 167

Wall's Creek near Medlow Bath

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

#### Section 1 - Declared dam identification details

Question	Answer
Dam name	Lake Medlow
Dam location	Wall's Creek near Medlow Bath
Type of dam	Concrete arch
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



#### **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Answer
High A
Yes
Brian Cooper/ Mark Foster/ Robin Fell
Yes
1/03/2019
31/12/2034
No



How was this checked?	Dam owner local knowledge	
Other		

## Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

# Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



## Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

## Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	23/05/2023
Individual risk rating of the dam	3.68x10-6
Societal risk rating of the dam	1.45x10-5
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Muhammad Hameed (WaterNSW)

Marius Jonker (Aurecon Australia Pty Ltd)

## Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/06/2020
Planned date for next safety review	31/12/2034

### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Marius Jonker (Aurecon Australia Pty Ltd)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

## Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. **Regulation**, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



## **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	31/05/2023
Planned date for next 'theoretical classroom' emergency exercise	1/05/2025

## For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	6/04/2022
Planned date for next practical emergency exercise	30/04/2027



## **Design and construction**

### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/12/2023
Date of last Operations and Maintenance Plan review	14/03/2024
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

# **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



# **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mittal
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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# **Annual Safety Standards Report**

**Dams Safety NSW** 

# **Lostock Dam - 184**

**Paterson River near Gresford** 

**Date of report:** 28/03/2024



## Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

## Section 1 - Declared dam identification details

Question	Answer
Dam name	Lostock Dam
Dam location	Paterson River near Gresford
Type of dam	Embankment
Main purpose of dam	Irrigation
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



# **Section 2 - Dams safety standards**

## Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	High A
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/09/2012
Date of next planned consequence category assessment	31/12/2027
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

## Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

# Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



## Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

## Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	31/1/2024
Individual risk rating of the dam	1.34 x10-6
Societal risk rating of the dam	6.9 x10-5
Date of next planned risk report	31/12/2027



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

2023 review - Matthew Ludeke (WaterNSW) 2012 quantitative report -David Evans (GHD Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

2012 quantitative report - Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)

## Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- · the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/01/2014
Planned date for next safety review	31/12/2027

### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

## Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



## **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	04/05/2023
Planned date for next 'theoretical classroom' emergency exercise	31/03/2025

## For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	5/04/2023
Planned date for next practical emergency exercise	30/04/2028



## **Design and construction**

### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/10/2023
Date of last Operations and Maintenance Plan review	14/03/2024
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

# **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



# **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitabas
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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# **Annual Safety Standards Report**

**Dams Safety NSW** 

# **Menindee Storages - 198**

Darling River and adjacent lakes near Menindee

**Date of report:** 27/03/2024



## Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

## Section 1 - Declared dam identification details

Question	Answer
Dam name	Menindee Storages
Dam location	Darling River and adjacent lakes near Menindee
Type of dam	Earthfill
Main purpose of dam	Irrigation
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



# **Section 2 - Dams safety standards**

## Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	High A
Has an independent review been done?	Yes
Name of independent reviewer	David Bowles
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/03/2023
Date of next planned consequence category assessment	31/12/2042
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



	How was this checked?	Study and report by consultant
	Other	
Documenting the dam safety management system		

#### Question Answer

Is the dam safety management system fully Yes documented?

If no, what percentage of the dam safety management system documentation is complete?

How did you confirm this percentage?

Does the dam safety management system apply Yes to more than one dam?

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



## Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

## Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	tfa_164
Do you know the date of your last risk report?	No
Date of last risk report	
Individual risk rating of the dam	
Societal risk rating of the dam	
Date of next planned risk report	31/12/2027



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

## Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- · the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
----------	--------

Date of the last safety review <u>Regulation</u>, <u>subclause 20(2)</u>

Planned date for next safety review

31/12/2027

## For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question Answer

If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

## Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



## **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	6/12/2022
Planned date for next 'theoretical classroom' emergency exercise	31/08/2025

## For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	7/12/2022
Planned date for next practical emergency exercise	31/08/2024



## **Design and construction**

### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/10/2023
Date of last Operations and Maintenance Plan review	23/08/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitchas
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

# Nepean Dam - 216

Nepean River near Bargo

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

#### Section 1 - Declared dam identification details

Question	Answer
Dam name	Nepean Dam
Dam location	Nepean River near Bargo
Type of dam	Concrete arch
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Extreme
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/ Robin Fell/ Mark Foster
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/03/2019
Date of next planned consequence category assessment	31/12/2034
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

#### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/05/2020
Individual risk rating of the dam	3.46x10-9
Societal risk rating of the dam	1.72x10-7
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)	Peter Ballantine (GHD Pty Ltd)
Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. <u>Regulation</u>, <u>clause 19</u>

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/05/2020
Planned date for next safety review	31/12/2034

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. **Regulation**, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	16/08/2023
Planned date for next 'theoretical classroom' emergency exercise	1/08/2026

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	24/03/2023
Planned date for next practical emergency exercise	1/07/2024



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/10/2023
Date of last Operations and Maintenance Plan review	4/04/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitabas
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

## **Oberon Dam - 225**

Fish River near Oberon

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

#### Section 1 - Declared dam identification details

Question	Answer
Dam name	Oberon Dam
Dam location	Fish River near Oberon
Type of dam	Concrete buttress
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	High A
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/09/2012
Date of next planned consequence category assessment	31/12/2027
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

#### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- · when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/01/2014
Individual risk rating of the dam	1.98 x10-6
Societal risk rating of the dam	8.74 x10-6
Date of next planned risk report	31/03/2024



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

David Evans (GHD Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- · the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/01/2014
Planned date for next safety review	31/12/2027

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	27/04/2021
Planned date for next 'theoretical classroom' emergency exercise	30/04/2024

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	28/03/2023
Planned date for next practical emergency exercise	1/03/2028



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/10/2023
Date of last Operations and Maintenance Plan review	4/04/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitaka
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

## Pindari Dam - 229

Severn River near Ashford

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

#### Section 1 - Declared dam identification details

Question	Answer
Dam name	Pindari Dam
Dam location	Severn River near Ashford
Type of dam	Rockfill
Main purpose of dam	Irrigation
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	High A
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/09/2012
Date of next planned consequence category assessment	31/12/2027
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

#### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	30/01/2024
Individual risk rating of the dam	3.31x10-7
Societal risk rating of the dam	2.46x10-6
Date of next planned risk report	31/12/2027



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

2023 review - Mike Ahmadi (WaterNSW) 2012 quantitative report -David Evans (GHD Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

2012 quantitative report - Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- · the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/01/2014
Planned date for next safety review	31/12/2027

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. **Regulation**, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	14/07/2021
Planned date for next 'theoretical classroom' emergency exercise	1/05/2024

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	23/03/2023
Planned date for next practical emergency exercise	1/03/2027



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/10/2023
Date of last Operations and Maintenance Plan review	23/10/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

# **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



# **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitaba
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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# **Annual Safety Standards Report**

**Dams Safety NSW** 

# **Prospect Dam - 241**

**Prospect Creek, Prospect** 

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

## Section 1 - Declared dam identification details

Question	Answer
Dam name	Prospect Dam
Dam location	Prospect Creek, Prospect
Type of dam	Embankment
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



# **Section 2 - Dams safety standards**

## Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Extreme
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Robin Fell/Mark Foster
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/04/2019
Date of next planned consequence category assessment	31/12/2034
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

# Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

# Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/06/2020
Individual risk rating of the dam	2.12x10-7
Societal risk rating of the dam	5.68x10-4
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)	Peter Ballantine (GHD Pty Ltd)
Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

## Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. <u>Regulation</u>, <u>clause 19</u>

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/06/2020
Planned date for next safety review	31/12/2034

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise <u>Regulation</u> , <u>subclause 22(1)</u>	16/03/2023
Planned date for next 'theoretical classroom' emergency exercise	1/09/2024

# For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	28/09/2023
Planned date for next practical emergency exercise	1/09/2025



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	01/12/2023
Date of last Operations and Maintenance Plan review	18/07/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

# **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



# **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitabas
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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# **Annual Safety Standards Report**

**Dams Safety NSW** 

# Rydal Dam - 256 off

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

## Section 1 - Declared dam identification details

Question	Answer
Dam name	Rydal Dam
Dam location	Off
Type of dam	Earthfill
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	No
Name of dam owner	WaterNSW
ACN number	21147934787



# **Section 2 - Dams safety standards**

## Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	High B
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/09/2012
Date of next planned consequence category assessment	31/12/2027
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

# Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

# Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- · when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/01/2014
Individual risk rating of the dam	2.23 x10-5
Societal risk rating of the dam	8.37x10-5
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

David Evans (GHD Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- · the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/01/2014
Planned date for next safety review	31/12/2027

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	27/04/2021
Planned date for next 'theoretical classroom' emergency exercise	30/04/2024

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	30/08/2022
Planned date for next practical emergency exercise	30/08/2027



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/10/2023
Date of last Operations and Maintenance Plan review	7/03/2024
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

# **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



# **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitotal
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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# **Annual Safety Standards Report**

**Dams Safety NSW** 

# Split Rock Dam - 268

Manilla River near Manilla

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

### Section 1 - Declared dam identification details

Question	Answer
Dam name	Split Rock Dam
Dam location	Manilla River near Manilla
Type of dam	Rockfill
Main purpose of dam	Irrigation
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Extreme
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/09/2012
Date of next planned consequence category assessment	31/12/2027
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/01/2014
Individual risk rating of the dam	6.35x10-7
Societal risk rating of the dam	1.42x10-5
Date of next planned risk report	31/12/2025



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

David Evans (GHD Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- · the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/01/2014
Planned date for next safety review	31/12/2027

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. **Regulation**, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	1/06/2022
Planned date for next 'theoretical classroom' emergency exercise	1/06/2025

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	8/02/2022
Planned date for next practical emergency exercise	28/02/2027



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/10/2023
Date of last Operations and Maintenance Plan review	6/03/2024
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

	,
Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitabas
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

# Tallowa Dam - 277

**Shoalhaven River near Nowra** 

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

### Section 1 - Declared dam identification details

Question	Answer
Dam name	Tallowa Dam
Dam location	Shoalhaven River near Nowra
Type of dam	Concrete gravity
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Answer
High A
Yes
Brian Cooper/Robin Fell/Mark Foster
Yes
1/08/2019
31/12/2034
No



How was this checked?	Dam owner local knowledge	
Other		

### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/05/2020
Individual risk rating of the dam	9.27x10-7
Societal risk rating of the dam	7.56x10-06
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)	Peter Ballantine (GHD Pty Ltd)
Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. <u>Regulation</u>, <u>clause 19</u>

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review <b>Regulation</b> , subclause 20(2)	1/05/2020
Planned date for next safety review	31/12/2034

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	19/07/2022
Planned date for next 'theoretical classroom' emergency exercise	30/07/2025

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	12/10/2022
Planned date for next practical emergency exercise	30/10/2027



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/12/2023
Date of last Operations and Maintenance Plan review	6/06/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitchel
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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# **Annual Safety Standards Report**

**Dams Safety NSW** 

# **Toonumbar Dam - 290**

Iron Pot Creek near Kyogle

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

### Section 1 - Declared dam identification details

Question	Answer
Dam name	Toonumbar Dam
Dam location	Iron Pot Creek near Kyogle
Type of dam	Embankment
Main purpose of dam	Irrigation
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	High B
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/09/2012
Date of next planned consequence category assessment	31/12/2024
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/01/2014
Individual risk rating of the dam	2.46x10-7
Societal risk rating of the dam	1.61x10-6
Date of next planned risk report	31/12/2024



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

David Evans (GHD Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- · the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/01/2014
Planned date for next safety review	31/12/2027

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. **Regulation**, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	13/07/2021
Planned date for next 'theoretical classroom' emergency exercise	31/03/2024

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	7/06/2023
Planned date for next practical emergency exercise	30/06/2028



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/10/2023
Date of last Operations and Maintenance Plan review	28/08/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitabay
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

## **Upper Cordeaux No 2 - 295**

**Cordeaux River near Wollongong** 

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

#### Section 1 - Declared dam identification details

Question	Answer
Dam name	Upper Cordeaux No 2
Dam location	Cordeaux River near Wollongong
Type of dam	Concrete arch
Main purpose of dam	Other
Other	No longer used for water supply
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Answer
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⁄es
/03/2019
31/12/2034
No



How was this checked?	Dam owner local knowledge	
Other		

#### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- · at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/05/2020
Individual risk rating of the dam	0
Societal risk rating of the dam	6.86 x10-5
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)	Peter Ballantine (GHD Pty Ltd)
Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. <u>Regulation</u>, <u>clause 19</u>

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review <b>Regulation</b> , subclause 20(2)	1/05/2020
Planned date for next safety review	31/12/2034

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise <u>Regulation</u> , <u>subclause 22(1)</u>	16/08/2023
Planned date for next 'theoretical classroom' emergency exercise	30/08/2026

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	No
Date of last practical emergency exercise	
Planned date for next practical emergency exercise	



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	01/12/2023
Date of last Operations and Maintenance Plan review	9/11/2022
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mittal
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

# Warragamba Dam - 300

Warragamba River near Warragamba

**Date of report:** 28/03/2024



#### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

#### Section 1 - Declared dam identification details

Question	Answer
Dam name	Warragamba Dam
Dam location	Warragamba River near Warragamba
Type of dam	Concrete gravity
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

#### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

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How was this checked?	Dam owner local knowledge	
Other		

#### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



#### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

#### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- · at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	Yes
Do you know the date of your last risk report?	Yes
Date of last risk report	1/09/2021
Individual risk rating of the dam	4.9x10-6
Societal risk rating of the dam	8.17x10-3
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

Damian Nott (GHD Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Brian Cooper/Robin Fell/Mark Foster/David Bowles (all independent contractors)

#### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/09/2021
Planned date for next safety review	30/09/2036

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Robin Fell/Mark Foster/David Bowles (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

#### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



#### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	11/04/2021
Planned date for next 'theoretical classroom' emergency exercise	30/03/2024

#### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	1/09/2022
Planned date for next practical emergency exercise	30/03/2025



#### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/10/2023
Date of last Operations and Maintenance Plan review	18/01/2024
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitation
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

## Windamere Dam - 310

**Cudgegong River near Mudgee** 

**Date of report:** 28/03/2024



### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

### Section 1 - Declared dam identification details

Question	Answer
Dam name	Windamere Dam
Dam location	Cudgegong River near Mudgee
Type of dam	Embankment
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



# **Section 2 - Dams safety standards**

### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Extreme
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/11/2012
Date of next planned consequence category assessment	31/12/2027
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

# Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	30/01/2024
Individual risk rating of the dam	8.31x10-10
Societal risk rating of the dam	2.37x10-7
Date of next planned risk report	31/10/2027



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

2023 review - Matthew Ludeke (WaterNSW) 2012 quantitative report -David Evans (GHD Pty Ltd)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

2012 quantitative report - Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)

### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- · the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/01/2014
Planned date for next safety review	31/12/2027

### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Paul Heinrichs/Phil Carter/Len McDonald (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. **Regulation**, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	15/11/2023
Planned date for next 'theoretical classroom' emergency exercise	30/11/2026

### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	15/03/2022
Planned date for next practical emergency exercise	30/03/2024



### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/10/2023
Date of last Operations and Maintenance Plan review	18/08/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

# **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



# **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitabay
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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# **Annual Safety Standards Report**

**Dams Safety NSW** 

# Wingecarribee Dam - 312

Wingecarribee River near Moss Vale

**Date of report:** 28/03/2024



### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

### Section 1 - Declared dam identification details

Question	Answer
Dam name	Wingecarribee Dam
Dam location	Wingecarribee River near Moss Vale
Type of dam	Embankment
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



# **Section 2 - Dams safety standards**

### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	High B
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Robin Fell/Mark Foster
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/08/2019
Date of next planned consequence category assessment	31/12/2034
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

# Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- · when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/03/2021
Individual risk rating of the dam	2.1x10-7
Societal risk rating of the dam	5.3x10-5
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Muhammad Hameed (WaterNSW)

Mark Foster (independent contractor)

### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	1/06/2020
Planned date for next safety review	31/12/2034

### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. **Regulation**, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	15/02/2023
Planned date for next 'theoretical classroom' emergency exercise	30/07/2025

### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	20/07/2022
Planned date for next practical emergency exercise	30/07/2027



### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/12/2023
Date of last Operations and Maintenance Plan review	15/05/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

# **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



# **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitabay
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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# **Annual Safety Standards Report**

**Dams Safety NSW** 

# **Woodford Dam - 315**

**Woodford Creek near Woodford** 

**Date of report:** 28/03/2024



### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

### Section 1 - Declared dam identification details

Question	Answer
Dam name	Woodford Dam
Dam location	Woodford Creek near Woodford
Type of dam	Concrete arch
Main purpose of dam	Other
Other	No longer used for water supply
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



# **Section 2 - Dams safety standards**

### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Significant
Has an independent review been done?	Yes
Name of independent reviewer	
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/03/2019
Date of next planned consequence category assessment	31/12/2034
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No
consequence category review?	



How was this checked?	Dam owner local knowledge	
Other		

### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

# Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- · when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	1/06/2020
Individual risk rating of the dam	0
Societal risk rating of the dam	5.06x10-7
Date of next planned risk report	31/12/2026



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)	Peter Ballantine (GHD Pty Ltd)
Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. <u>Regulation</u>, <u>clause 19</u>

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review <b>Regulation</b> , subclause 20(2)	01/06/2020
Planned date for next safety review	31/12/2034

### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer
Name of independent competent reviewed and their organisation	Brian Cooper/Robin Fell/Mark Foster (all independent contractors)

### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. **Regulation**, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	31/05/2023
Planned date for next 'theoretical classroom' emergency exercise	30/05/2025

### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	No
Date of last practical emergency exercise	
Planned date for next practical emergency exercise	



### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/12/2023
Date of last Operations and Maintenance Plan review	21/09/2022
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitabay
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

## Woronora Dam - 322

**Woronora River near Waterfall** 

**Date of report:** 28/03/2024



### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

### Section 1 - Declared dam identification details

Question	Answer
Dam name	Woronora Dam
Dam location	Woronora River near Waterfall
Type of dam	Concrete arch
Main purpose of dam	Water Supply
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Extreme
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper/Robin Fell/Mark Foster
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/03/2019
Date of next planned consequence category assessment	31/12/2028
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	16/12/2022
Individual risk rating of the dam	1.1x10-7
Societal risk rating of the dam	6.5x10-5
Date of next planned risk report	31/12/2027



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

Lorreta Agnew (AECOM)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Gavan Hunter, David Bowles (independent contractors) and Marius Jonker (Aurecon)

### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- · a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	16/12/2022
Planned date for next safety review	31/12/2037

#### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Gavan Hunter, David Bowles (independent contractors) and Marius Jonker (Aurecon)



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	16/08/2023
Planned date for next 'theoretical classroom' emergency exercise	31/08/2026

### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	18/08/2022
Planned date for next practical emergency exercise	30/07/2024



### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	30/06/2023
Date of last Operations and Maintenance Plan review	14/03/2024
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Mitotal
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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## **Annual Safety Standards Report**

**Dams Safety NSW** 

# Wyangala Dam - 323

**Lachlan River near Cowra** 

**Date of report:** 28/03/2024



### Introduction

The Annual Dams Safety Standards Report demonstrates the declared dam owner's compliance with the dam safety standards set out in the Dams Safety Regulation 2019 (the Regulation).

Every year, declared dam owners must lodge a separate report for each of their declared dams with Dams Safety NSW by 31 March.

The report covers the period 1 January to 31 December of the previous calendar year.

### Section 1 - Declared dam identification details

Question	Answer
Dam name	Wyangala Dam
Dam location	Lachlan River near Cowra
Type of dam	Embankment
Main purpose of dam	Irrigation
Other	
Is the dam built on a river, stream or watercourse?	Yes
Name of dam owner	WaterNSW
ACN number	21147934787



## **Section 2 - Dams safety standards**

### Consequence category of dam - Regulation, Part 3

The dam consequence category is a rating of potential impacts resulting from a dam failure. It must be assessed:

- within 6 months of the dam being declared
- at least once every 15 years
- after any significant change in the number of people likely to be affected by a dam failure
- or if required by Dams Safety NSW. Regulation, subclause 7 (2).

Question	Answer
Dam consequence category	Extreme
Has an independent review been done?	Yes
Name of independent reviewer	Brian Cooper, Rory Nathan, Rob Ayre
Why has no independent review been done?	
Do you know the date of the last consequence category assessment by a competent person?  Regulation, subclause 3 (1)	Yes
Date of the last consequence category assessment	1/09/2020
Date of next planned consequence category assessment	31/12/2042
Has the number of people likely to be affected by a dam failure changed since the last consequence category review?	No



How was this checked?	Dam owner local knowledge	
Other		

### Documenting the dam safety management system

Question	Answer
Is the dam safety management system fully documented?	Yes
If no, what percentage of the dam safety management system documentation is complete?	
How did you confirm this percentage?	
Does the dam safety management system apply to more than one dam?	Yes

## Implementing the dam safety management system

Question	Answer
Is the dam safety management system fully implemented at this dam?	Yes
If no, what percentage of the dam safety management system is implemented?	
How did you confirm this percentage?	



### Dam safety management system review

Question	Answer
Since implementing your dam safety management system, have you reviewed it?	Yes
Date of last review	31/10/2023

### Assessment of societal and individual risk rating

The owner of a declared dam (other than a proposed dam) must use the risk management framework, **Regulation Part 5**, **clause 14** to produce a written report on all forseeable risks to the dam:

- at least once every 5 years
- when a major change to the dam is proposed, and
- after any significant change in the number of people likely to be affected by a dam failure
- when required by Dams Safety NSW. Regulation, clause 15.

Question	Answer
Is your dam above the safety threshold?	No
Do you know the date of your last risk report?	Yes
Date of last risk report	31/07/2021
Individual risk rating of the dam	2.5x10-7
Societal risk rating of the dam	7.34 x10-4
Date of next planned risk report	31/12/2025



Name of competent person and their organisation who signed off the risk report (if risk report recommenced after 1 July 2022)

Name of independent competent person and their organisation who reviewed the report (if risk report commenced after 1 July 2022 - for an extreme, high A or high B consequence dam

Steve Fox (SGJV, Stantec and GHD)

Brian Cooper, Rory Nathan, Rob Ayre (independent contractors)

### Other safety requirements - Regulation, Part 6

The declared dam owner must report incidents that happen at or in relation to the dam to Dams Safety NSW. Regulation, clause 19

Question	Answer
Have you had any reportable incidents during the last calendar year?	No
How many incidents?	
Topic/subject of the incident(s)	



#### Safety review

The declared dam owner must ensure that a safety review to assess the overall safety of the dam is undertaken by:

- for an extreme or high consequence dam, other than a high C consequence dam—a team of at least 2 competent persons, or
- otherwise—a competent person

The declared dam owner must ensure that a safety review is carried out at least once every 15 years, and as soon as practicable after:

- a deficiency or weakness in the dam is identified
- there is a change in the accepted technology or methods used in one of the relevant specialties or design criteria for dams
- the dam consequence category changes, or
- it is required by Dams Safety NSW. Regulation, clause 20

Question	Answer
Date of the last safety review Regulation, subclause 20(2)	31/07/2021
Planned date for next safety review	31/07/2036

### For extreme and high consequence dams only

If the dam's consequence category is extreme, high A or high B, the safety review must be reviewed by a panel of at least 2 independent competent persons. **Regulation**, **subclause 20(6)** 

Question	Answer
If Safety Review commenced after 1 July 2022 - names of independent competent reviewers and their organisation	Brian Cooper Rory Nathan Ron Avre



If the dam's consequence category is high C, the safety review must be reviewed by an independent competent person. Regulation, subclause 20(6A)

Question	Answer

Name of independent competent reviewed and their organisation

### Notification of significant changes to the dam

Before making any significant change to the configuration of the declared dam that may affect the safety of the dam, the dam owner must inform Dams Safety NSW of the proposed change in writing. Regulation, clause 21

Question	Answer
Has any significant change to the configuration of the dam been made during this calendar year?	No
Describe the change	
Is any significant change to the configuration of the dam planned?	No
Describe the change and when is it planned?	
Other	
Date	



### **Emergency exercises**

The declared dam owner must ensure that staff who are involved in the operation of the dam undertake emergency exercises at least once every 3 years. Regulation, clause 22

Question	Answer
Have you done a 'theoretical classroom' emergency exercise?	Yes
Date of last 'theoretical classroom' emergency exercise Regulation, subclause 22(1)	27/06/2023
Planned date for next 'theoretical classroom' emergency exercise	1/06/2024

### For extreme or high consequence dams only

The declared dam owner must ensure that staff who are involved in operating the dam undertake practical emergency exercises at least once every 5 years, where possible including relevant agencies identified in the emergency plan. <u>Regulation</u>, <u>subclauses 22 (3) and 22 (4)</u>

Question	Answer
Have you done a practical emergency exercise?	Yes
Date of last practical emergency exercise	27/06/2023
Planned date for next practical emergency exercise	1/06/2025



### **Design and construction**

#### Dam safety management system for design and construction

Question Answer

Does the dam safety management system cover dam design and construction? <u>Regulation</u>, <u>Clause 12(3)</u>

Was the risk management framework used or is it currently being used to prepare a risk report at the dam design stage? **Regulation, clause** 15(2)

Certain work must be carried out by a person subject to a quality management system. **Regulation**, subclause 23(1)

Question Answer

Have you ensured that design and construction are carried out by a person subject to an AS ISO 9001:2016 quality management system?

Independent competent persons must review work involving dam design. Regulation, clause 24

Question Answer

For Extreme and High consequence category dams, provide the name of the independent person(s) and their organisation who reviewed or are reviewing the design <u>Regulation</u>, <u>clause</u> <u>24</u>

For dams still in an early design phase, have you planned an independent competent person design review?



# **Section 3 - Additional information for Dams Safety NSW**

Question	Answer
Date of last Emergency Plan review	1/12/2023
Date of last Operations and Maintenance Plan review	14/11/2023
Is last year's Annual Dams Safety Standards Report published on your website?	Yes
Provide the link to the report	https://www.waternsw.com.au/water- services/water-storage/dam-safety

## **Section 4 - Attestation**

The Attestation of the information provided in the form must be completed by the dam owner office holder(s):

Dam owner	Attesting office holder(s)
Company	<ul> <li>2 directors, or</li> <li>1 director and 1 company secretary</li> <li>The combined director and company secreatary (where there is only 1 director)</li> </ul>
Statutory state-owned corporation	Chief Executive Officer or Managing Director responsible for managing the operation of the statutory state-owned corporation in accordance with the general policies and specific directions of the board
Statutory corporation	<ul> <li>Corporation with 2 or more members:</li> <li>President, chairperson or another principal officer of the corporation</li> <li>Sole corporation</li> <li>The person who constituted the constitution</li> <li>The person managing the affairs of the corporation</li> </ul>
Government department	Secretary
Individual	Individual



## **Section 4 - Attestation continued**

# Declared dam owner office holder(s) attesting to the accuracy of this report

Name of declared dam owner office holder attesting to the accuracy of this report	Geoff Watson
Position of declared dam owner office holder attesting to the accuracy of this report	General Manager - Asset Planning & Delivery
Signature	Military
Name of declared dam owner office holder attesting to the accuracy of this report	
Position of declared dam owner office holder attesting to the accuracy of this report	
Signature	

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