

# Water Directorate (NSW) Dam Forum

9 October 2013  
Sydney

## NSW Dams Safety Committee (DSC) Notes

# DSC Prescribed Dam Numbers

- Approximately 380 Dams & Basins
- Includes 148 Council/LWU structures
  - 71 Dams
  - 77 Detention and Retarding Basins
- Owned by 66 Councils and other Local Water Utilities (LWUs)
  - 30 LWUs with multiple prescribed structures
  - 36 LWUs with single prescribed structures
- 10 LWU structures plot above Limit of Tolerability (LoT) – 8 dams & 2 basins

# DSC Guidance Sheets

- Website : <http://www.damsafety.nsw.gov.au>
- → Homepage: See “**Guidance Sheets**” under the following headings & locations
  - **Directory > or Topics > or For Industry >**
    - **Publications > Guidance Sheets >**
  - **Publications > {RHS}**
    - **Guidance Sheets >**
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# DSC Guidance Sheets

- → Homepage: See “**Guidance Sheets**”
- [Amendments to] **Guidance Sheets** >
- **General Guidance Sheets** >
  - DSC1A & DSC1B
  - DSC2A to DSC2I
- **Dam Guidance Sheets** >
  - DSC3A to DSC3G
- **Mining Guidance Sheets** >
  - DSC4A to DSC4D

# DSC Forms

- Website :

<http://www.damsafety.nsw.gov.au>

- → Homepage: See “**Forms**” also under the following headings & locations

- **Directory** > or **Topics** > or **For Industry** >
  - **Publications** >
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  - **Publications** > {*RHS*}
  - **Forms** >
  - **Data Forms** > {*RHS*}

# DSC Forms

- D1 Basic Data Form for dams
- D2 Notice of intention to design or modify a dam
- D3 Notice of intention to construct a dam
- D4 Notice of completion of construction of a new or modified dam
- D5 Surveillance Report Type 3
- D6 Flood Security Status Form

# DSC Forms

- D8 Dam Owners Address Form
- D9 Construction Certificate
- D12 Status of Safety Management System Reporting Form
- D15 Requirements for Surveillance Reports
- D17 Checklist for Formulating Dam Safety Emergency Plans (DSEPs)
- D19 Tailings Dam - Intermediate Report Requirements [*Not typically applicable for LWUs*]

# Interaction of DSC over Dam Life Cycle

(see Guidance Sheet DSC2B)

## **Investigation**

- Owners provide proposed dam details.
- DSC decides on prescription and provides ongoing requirements (see DSC2B).

## **Design**

- DSC reviews suitability of design team.
- DSC requires design report and reviews major design standards (does not review details).

## **Construction**

- DSC requires designer involvement during construction in particular to approve any changes.



# Interaction of DSC over Dam Life Cycle (see Guidance Sheet DSC2B)

## **Construction (continued)**

- DSC requires Construction Report and Construction Completion Certificate.

## **Commissioning**

- DSC requires Surveillance Report after first filling or one year after construction.
- DSC requires Operation & Maintenance Manual.
- DSC requires Dam Safety Emergency Plan (DSEP) if downstream lives at risk:
  - Can be Modified DSEP for Significant CC dams.
  - DSEP not required for Low CC dams.

# Interaction of DSC over Dam Life Cycle

## Operation

- DSC requires regular routine surveillance and recording by the owner.
- DSC conducts random checks of compliance.
- DSC requires submission of Surveillance Reports at regular intervals (usually 5 yearly)
- DSC requires Safety Reviews at regular intervals (usually 15 to 20 year intervals) unless needed sooner.

## Modifications

- DSC requirements similar to that for a new dam.

## Decommissioning

- DSC reviews proposal and also requires decommissioning report.

# Requirements during Life of a Dam

(see Guidance Sheet DSC2B)

1. Operation & maintenance (see **DSC2F** generally and **DSC3D** for gated dams);
2. Regular dam surveillance using trained personnel (see **DSC2C**);
3. DSEPs to be in place for those dams whose failure could cause loss of non-itinerant life (see **DSC2G**);
4. Ongoing assessment of dam behaviour on the basis of surveillance information (see **DSC2C** and **DSC2D**);
5. Periodic review of dam's compliance with current DSC requirements (see **DSC3A** to **DSC3G**);

# Requirements during Life of a Dam

(see Guidance Sheet DSC2B)

6. Review of all dam information and assessments by experienced personnel (see **DSC1A**, **DSC2B**, **DSC2C**, **DSC2D**);
7. Actions, in response to dam assessments, to ensure that dams are maintained in a safe condition (see **DSC1A** and **DSC2D**).
  - However, if the DSC considers that a prescribed dam is unsafe, or may become unsafe, it may give notice, under Section 18 of the *Dams Safety Act 1978*, requiring the dam owner to take actions necessary to ensure the dam's safety.
  - The DSC can also require documentation under Section 15 of the Act where reports are very overdue.