IPART Independent Pricing and Regulatory Tribunal | NSW

Dams Safety NSW levy review

Draft Report

July 2024

Acknowledgment of Country

IPART acknowledges the Traditional Custodians of the lands where we work and live. We pay respect to Elders both past and present.

We recognise the unique cultural and spiritual relationship and celebrate the contributions of First Nations peoples.

Tribunal Members

The Tribunal members for this review are:

Carmel Donnelly PSM, Chair
Dr Darryl Biggar
Jonathan Coppel
Sharon Henrick

Enquiries regarding this document should be directed to a staff member:

Xanthe Smith	(02) 9290 8470
Rhea Rachel	(02) 9019 1959
Matthew Mansell	(02) 9113 7770

Invitation for submissions

IPART invites comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

Submissions are due by Monday, 19 August 2024

We prefer to receive them electronically via our online submission form.

You can also send comments by mail to:

Dams Safety NSW levy review
Independent Pricing and Regulatory Tribunal
PO Box K35
Haymarket Post Shop, Sydney NSW 1240

If you require assistance to make a submission (for example, if you would like to make a verbal submission) please contact one of the staff members listed above.

Late submissions may not be accepted at the discretion of the Tribunal. Our normal practice is to make submissions publicly available on our website as soon as possible after the closing date for submissions. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed above.

We may decide not to publish a submission, for example, if we consider it contains offensive or potentially defamatory information. We generally do not publish sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please let us know when you make the submission. However, it could be disclosed under the *Government Information (Public Access) Act 2009* (NSW) or the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW), or where otherwise required by law.

If you would like further information on making a submission, IPART's submission policy is available on our website.

The Independent Pricing and Regulatory Tribunal

IPART's independence is underpinned by an Act of Parliament. Further information on IPART can be obtained from IPART's website.

Contents

1 Executive Summary

Dams play an essential role in the NSW economy, and a key role in building flood resilience for the broader NSW community. Of NSW's tens of thousands of dams, 381 are currently 'declared dams', meaning that they represent significant potential danger to life, infrastructure or the environment downstream in the event of failure.[1] Dams Safety NSW (DSNSW) is an independent regulator charged with ensuring the safety of these declared dams, an increasingly important role as we continue to experience the impacts of climate change and more extreme weather events.

Currently, DSNSW operations are funded by the NSW Government. However, the *Dams Safety Act 2015* allows the Government to establish a levy to recover efficient costs of regulating the safety of declared dams in NSW from owners of declared dams.

The NSW Government has authorised IPART under the *IPART Act 1992* to design such a levy, which the Government may then decide to implement. Figure 1.1 below outlines the tasks involved in this review. Notably, IPART has not been asked to comment on whether a levy should be implemented.

Figure 1.1 IPART's Terms of Reference

We have analysed DSNSW's operations, and with the help of FTI Consulting reviewed its expenditure. We consider that its current expenditure (roughly $4.6 million per annum) reflects a sufficient and reasonable level of resources to undertake its obligations under the *Dams Safety Act 2015*.

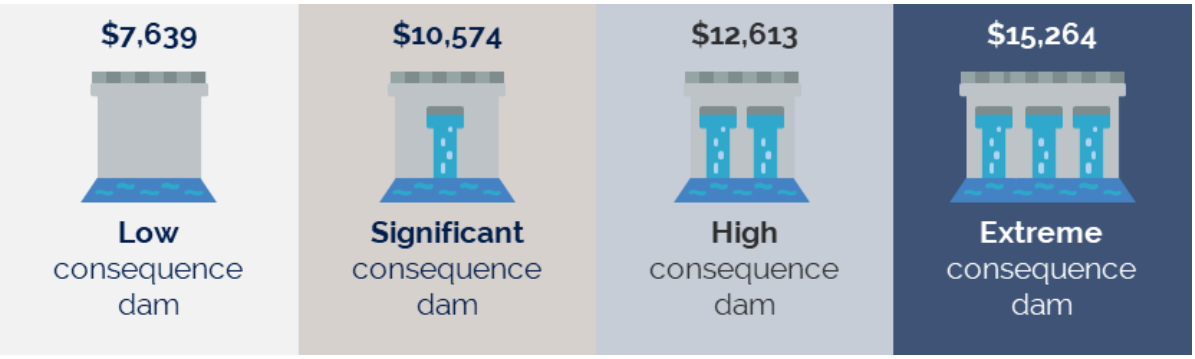
In designing a levy for dam owners, we allocated DSNSW costs into 3 categories:

- Direct costs ($3.02 million) – directly attributable to dam owners and driven by dam characteristics (such as dam consequence category)
- Indirect costs ($1.32 million) – necessary for providing services to all dam owners, but not as variable between dams (e.g. corporate overheads)
- Non-levy costs ($0.25 million) – costs unrelated to declared dams.

We recommend that $4.34 million (95% of DSNSW's costs) are included in a levy, and the remaining $0.25 million (5% of DSNSW's costs) continue to be funded by Government.

We have calculated levies per declared dam that range from $7,639 to $15,264 per annum. The levy varies with the consequence rating of the dam to recognise that higher consequence dams require more regulatory effort from DSNSW and so drive more of its costs. The levy that would apply to each category of dam is presented in Figure 1.2.

Figure 1.2 Levy payable, by dam consequence category



Source: IPART analysis. All prices are in $2024-25 terms, with subsequent years to be adjusted for inflation.

We have also made a series of recommendations for the future, should the Government decide to implement the levy:

- The Government should consider providing funds to decommission some unused dams that no longer serve a purpose but continue to pose safety risks.
- DSNSW's efficient costs and the levy should be independently reviewed in 3 years to ensure the levy is accurate and fit for purpose as the regulatory regime matures.
- DSNSW should improve data collection to allow for more accurate cost allocation in the levy and to provide assurance that its costs are efficient.
- In the upcoming review of the *Dams Safety Act 2015*, DSNSW should consider adding the ability to charge 'fees for services' and possibly retaining some funding from penalty notices that it issues.
- The Government should consider auditing DSNSW's performance, regardless of whether it introduces a levy, in recognition of the critical work it does.

We invite stakeholders to participate in our online Public Hearing on 5 August 2024, and to make a submission on the contents of this Draft Report by 19 August 2024.

Have your say

We welcome feedback on the findings and recommendations made in this Draft Report.

You can get involved by making a submission, submitting feedback or attending a public hearing.

Submit feedback »

Recommendations

1. DSNSW's efficient costs should be set at $4.6 million per annum (in $2023-24 terms), of which: 15
   a. $0.25 million should be excluded from the costs to be recovered by a levy on declared dams 15
   b. $4.34 million should be included in the costs to be recovered by a levy on declared dams, should the Government decide to implement a levy. 15

2. DSNSW should continually seek to identify and implement opportunities to improve its effectiveness and efficiency, and any cost savings that are made should be retained in its Special Deposits Account. Any future review of the dams safety regulation levy should consider the surplus funds from this account in determining cost allocations between dam owners, and to offset the levy in subsequent years. 15

3. If the Government decides to implement a dams safety regulation levy, we have calculated a schedule of levies that varies by dam consequence category. These levies would recover DSNSW's efficient costs of regulating declared dams. 19
   a. Table 4.1 presents the draft schedule of dams safety levies that would apply to each dam consequence category. The levies are presented in $2024-25 terms, and would be subject to CPI adjustment on 1 July each year. 19
   b. The levy should be applied at the beginning of each financial year. 19
   c. In any financial year, the levy should apply only to dams that are declared as at 1 July that year, and the amount payable should be based on their consequence category as at 1 July that year. 19
   d. Once implemented, the levy should be adjusted for inflation on 1 July each year, using changes in the March-March quarter CPI. Specifically, to adjust the levy from $2024-25 to $2025-26 (which would apply from 1 July 2025 to 30 June 2026), DSNSW should adjust the levy by the percentage change in the CPI from March 2024 to March 2025. 20

4. Should the Government decide to implement a levy, it should apply from 1 July as an annual levy. In this event, current Government funding for DSNSW should cease by 30 June of the prior financial year for all costs other than non-levy costs. 20

5. The Government should consider the issue of broader dam related costs being shared between local councils where dams provide benefits across LGA lines, as part of its inquiry into local government ability to fund infrastructure. 25

6. The Government should consider making funds available to decommission local council and government owned dams that no longer serve a purpose. 25

Seek Comment

2 Context and background

Dams play an important role in NSW's water landscape, and provide numerous benefits to communities, industry and the environment. They also play a key role in building greater flood resilience for dam owners and the broader NSW community. NSW is home to tens of thousands of dams, of which roughly 380 are 'declared' – i.e. those which can potentially endanger life downstream, cause major damage or loss to infrastructure, the environment, or have major health and social impacts.[2] These dams are also exposed to the growing pressures of climate change and the increasing frequency of severe weather events and natural disasters. Ensuring the safety of declared dams is in everyone's interest – now and into the future.

Prior to 2015, dams safety in NSW was administered by a Dams Safety Committee under the *Dams Safety Act 1978*. There were limited prescriptive regulations guiding dam safety standards, and the Dams Safety Committee fulfilled its regulatory functions primarily by publishing guidance sheets for dam owners to follow. In 2015, the NSW Government passed legislation establishing DSNSW as an independent regulator responsible for ensuring that dam owners manage the safety of 'declared dams' in NSW.

Box 2.1 'Declared' dams

A 'declared dam' is a dam which DSNSW has determined could cause serious impacts in the event of a failure. DSNSW will declare a dam if:

- it has a wall that is more than 15 metres high
- DSNSW is reasonably satisfied that a failure would endanger the life of a person, or result in a major or catastrophic level of severity of damage or loss
- it was 'prescribed' under the old *Dams Safety Act 1978*.

Declared dams are assigned a consequence rating, between very low and extreme, based on likely impact in the event of a failure and the likelihood of said failure. An explanation of how dams are categorised is in Appendix A. Owners of declared dams must comply with DSNSW regulations.

At present, NSW has 381 declared dams.

Source: Dams Safety NSW website

The *Dams Safety Act 2015* strengthened the scope of dams safety regulation and replaced the Dams Safety Committee with DSNSW. The provisions of the 2015 Act are supported by the *Dams Safety Regulation 2019,* which details the operational and safety standards with which declared dam owners must comply.

Alongside this new regulatory environment, the 2015 Act also authorised the NSW Government to establish a levy to recover the costs of regulating the safety of declared dams in NSW. This levy, payable by owners of declared dams, would provide for the recovery of DSNSW's efficient costs of administering its regulatory functions.

2.1 IPART's role

The NSW Government has authorised IPART under the *IPART Act 1992* to design a levy to recover DSNSW's efficient costs, which the Government may then decide to implement. IPART's tasks under our Terms of Reference are to:

- Investigate and report on the **efficient costs** of DSNSW carrying out its functions
- Recommend a **methodology for recovering** the efficient cost from individual dam owners
- Recommend a methodology for **determining a levy**, and the quantum of the levy, to be assigned to individual dams
- Recommend **information** that DSNSW should collect to inform future assessments of efficient costs and determination of the levy.

This Draft Report outlines our draft findings on DSNSW's efficient costs, and our draft recommendations on recovering these costs and calculating a levy. In preparing this report, we have considered all submissions made by stakeholders to our Issues Paper and through our online workshops in early May 2024, as well as submissions made in response to an earlier review of the levy conducted by DSNSW in 2020.

2.2 DSNSW's role

DSNSW is an independent regulator responsible for ensuring that dam owners manage the safety of their declared dams in NSW. DSNSW fulfils its regulatory functions by determining how the *Dams Safety Regulations 2019* and associated standards are administered. DSNSW also plays a role in preparing and publishing educational resources on dams safety, and in reviewing mining development applications that affect, or have the potential to affect, the safety of declared dams.

DSNSW has a 6-member Board (including its CEO), and is supported by 25 staff members (employed by the Department of Climate Change, Energy, the Environment and Water). As of January 2024, it regulates 381 declared dams and has a budget of $4.6 million.[3]

2.3 Background to the levy

In 2012 IPART and the NSW Commission of Audit raised concerns about the level of expenditure on dam safety, and whether it was in accordance with good public management practice. Following this, the NSW Government engaged KPMG to review the dams safety regulatory framework,[a] and in 2015 the new *Dams Safety Act 2015* was introduced.

One of the recommendations in the KPMG report is that regulators should be funded by 'relevant risk creators'[4] (that is, owners of declared dams), because it would be more efficient. In response, the *Dams Safety Act 2015* includes a provision for DSNSW to collect a levy from dam owners to recover the costs of conducting its work in relation to declared dams.

Following this, the NSW Government has asked IPART to recommend a methodology for recovering DSNSW's costs from dam owners, and to design a dams safety regulation levy. IPART's recommendations will be made to the Government, who will ultimately decide whether to implement the levy. Within this role, our aim is to design a levy that is as fair, efficient and affordable as possible.

2.4 Funding for regulators

It is not uncommon for regulators to be funded through levies or user charge. For instance, the State Insurance Regulatory Authority is partly funded through the Workers Compensation Operational Fund, made up of contributions by insurers and self-insurers.[5] In essence, workers compensation regulation is paid for by those being regulated. Similarly, the Australian Maritime Safety Authority funds coastal marine aids through a user pays charge – commercial ships pay a levy based on net tonnage of the vessel.[6] In NSW, the Natural Resources Access Regulator (NRAR) is funded through water management charges paid by water access licence holders in NSW.

There are also examples of dams safety regulation being funded this way. The dams safety regulator in California USA has charged annual fees to dam owners since the 1960s. The regulator is now fully funded by these fees, along with application fees that are charged for modifying or building new dams. Annual fees are made up an administration charge (paid by all dam owners) and a dam charge (based on height of the dam wall and number of critical appurtenant structures in the dam).[7]

In Sweden, dams safety regulation is funded through annual fees paid by dam owners, with fees varying by potential consequence in the event of dam failure. In addition, the regulator charges an hourly rate to provide relevant supervision for dam owners that request assistance in complying with safety regulations.[8]

[a] See the KPMG 2013 report: *Review of the Dams Safety Act 1978 and Dams Safety Committee*.

2.5 How you can have your say

Stakeholders are encouraged to participate in our online Public Hearing on 5 August 2024. We are also seeking submissions on this Draft Report by 19 August 2024. Our Final Report will be informed by our stakeholder consultation throughout this review. We will provide our Final Report to the Government in September 2024 for consideration.

3 DSNSW's efficient costs

Establishing the efficient costs of DSNSW's operations is an important first step in determining a levy. It ensures that the cost base underlying the levy is reasonable, and that dam owners do not pay more than is needed to fund DSNSW's regulatory functions.

To inform our review of these efficient costs, we engaged FTI Consulting to undertake an analysis of DSNSW's current and forecast expenditure, and to make recommendations as to which costs should reasonably be recovered via the levy. The Tribunal then considered FTI Consulting's recommendations and made some changes to the categorisation of costs.

This chapter outlines our consideration of DSNSW's costs, including FTI Consulting's analysis and recommendations. In the following sections, we set out our:

- draft findings on DSNSW's efficient costs, and
- draft recommendations on how best to allocate these efficient costs between declared dams.

FTI Consulting's report on DSNSW's costs is available on IPART's website.

3.1 Approach to estimating efficient costs

To estimate DSNSW's forecast efficient costs, FTI Consulting first considered the breakup of costs incurred in the current 2023-24 financial year. These costs amounted to roughly $4.6 million.[b] While this was found to be driven mainly by labour costs, there was insufficient activity-based cost data to accurately establish the proportions of these costs spent on different regulatory activities.

In lieu of activity-based cost data, FTI Consulting held a series of interviews and workshops with key DSNSW staff to obtain a breakdown of its annual costs on a per-activity basis. Based on this information, FTI found that DSNSW's costs could be categorised into 16 distinct activities. Table 3.1 shows the breakdown of costs incurred for each of these activities in 2023-24.

[b] Using 10 months of actual cost data, and 2 months of forecasts.

Table 3.1 Breakdown of DSNSW's costs by activity

Activity	Total cost ($)
1. Advice to Minister/Government	17,800
2. Annual dams safety standards report	67,370
3. Audit compliance - decommissioning	27,900
4. Audit compliance - design and construction	111,250
5. Audit compliance - operations and maintenance	586,900
6. Audit compliance - reviewing reports	257,650
7. Corporate support/overheads	1,249,380
8. Dam declaration and revocation	78,200
9. Declaring a dam mining notification area	66,590
10. Develop regulatory framework and guidelines	159,370
11. Educate and inform dam owners	966,350
12. IT system build (DIMS) & maintenance	144,750
13. Monitor dams above the safety threshold	78,450
14. Respond to incident reports	79,210
15. Respond to non-compliance	618,380
16. Review mining consent applications	80,450
Total	4,590,000

Note: All costs are in $2023-24 terms.
Source: IPART and FTI Consulting analysis.

3.1.1 Efficiency metrics

After establishing DSNSW's total costs on a per-activity basis, FTI consulting considered different methods of assessing its efficiency, including:

- How DSNSW's 2023-24 costs compare to prior years, as well as forecasts for future years.
- Whether DSNSW is fulfilling all of its legislative objectives within its current budget.
- The outcomes of prior independent reviews into DSNSW's resourcing, efficiency and regulatory maturity.
- The level of Board and Treasury scrutiny of DSNSW's annual budgets.

By all these measures, FTI Consulting found that DSNSW's 2023-24 costs are likely to represent the efficient costs of delivering its services to dam owners. Specifically, FTI noted that:

- DSNSW currently prioritises resources towards higher consequence rated dams, including for audits and response to non-compliance.
- DSNSW publicly reports annually on its operational activities and has identified key performance targets to assess its effectiveness.
- The DSNSW Board and NSW Treasury scrutinise proposed budgets, and the DSNSW Board regularly scrutinises expenditure and performance.[9]

A detailed discussion of DSNSW's efficiency assessment is provided in Chapter 3 of FTI Consulting's report.

We agree with FTI Consulting's findings on efficiency. In our view, the assessment of DSNSW's efficiency through various financial, performance and governance lenses provides the best available indication that DSNSW's costs are not unreasonable, in lieu of there being any other activity-based costing data.

As part of its assessment, FTI Consulting also considered how DSNSW's costs compare to other regulators of a similar size and jurisdiction. FTI compared DSNSW's activities, resourcing and costs to dams safety regulators in Queensland, Tasmania and Victoria. While each of these regulators were distinctly different in their regulatory scope, the Queensland dams safety regulator was the most closely comparable to DSNSW in terms of functions and activities.

FTI's comparison of NSW and Queensland's dam safety regulators revealed that while there are some notable differences in functions and the numbers of regulated dams, DSNSW's costs and resourcing levels are in a similar range to its Queensland counterpart. Specifically, DSNSW has 25 FTE[c] staff and an annual budget of $4.45 million[d], while the Queensland Department of Regional Development, Manufacturing and Water's dams safety body has 20 FTEs and an annual budget of roughly $5 million[e].[10] While not evidence of efficiency in itself, this comparison serves as a 'sense check' that DSNSW's costs are broadly aligned with what could be reasonably expected from a mature dams safety regulator, and that DSNSW itself is unlikely to be over resourced. Section 3.3.5 of FTI Consulting's report provides a comparison of DSNSW with other jurisdictional dams safety regulators.

3.1.2 Any additional cost efficiencies should be used to offset future levies

While we have not undertaken a detailed performance review, our analysis of DSNSW's costs and resources found no evidence to suggest that it is operating inefficiently or that its current resourcing level is unreasonable. While this assessment used the best available information from a range of cost and performance metrics, we recognise that there may be opportunities for DSNSW to find further efficiencies and reduce its costs going forward.

Within this context, it is important that DSNSW actively seeks opportunities for further cost efficiencies. Any cost savings that are made should be retained in DSNSW's Special Deposits Account,[f] so that a future recalculation of the levy can use any surplus funds received through the levy to offset the amounts payable by dam owners in future periods.

In our view, this approach would allow a practice of continuing cost-efficiency, while also allowing dam owners to periodically receive the benefit of DSNSW's cost efficiencies through lower levies in future periods.

[c] FTE refers to 'full-time equivalent'.
[d] In $2023-24 terms
[e] In $2023-24 terms
[f] As provided in the *Dams Safety Act 2015* (NSW), s 40

3.1.3 DSNSW's costs are based on its current transition to the new regulatory regime

DSNSW was formally established in 2019, alongside the commencement of the *Dams Safety Regulations 2019* ('Regulations'). The Regulations introduced a set of new safety requirements on dam owners, and outlined responsibilities for DSNSW to ensure that dams safety risks are minimised 'as far as reasonably practicable'.

DSNSW is currently operating in a 'transitionary phase' as it rolls out this new regulatory regime. This change will mark a shift from its current practice of profiling dams based on consequence only (i.e., the potential impacts from dam failure) to instead also profiling dams on their likelihood of failure. The product of these consequence and likelihood assessments will yield a risk rating for each dam, which will underpin DSNSW's new risk-based regulatory framework.

Over the next 2 years, DSNSW will focus on auditing dams and reviewing their risk reports to generate a risk rating for all declared dams across NSW. These risk ratings will then inform its regulatory strategy and audit/compliance priorities – and consequently its total operating costs for future years. DSNSW expects to complete this first round of risk data collection by late 2026.[11]

The costs we have included in the levy represent the costs incurred by DSNSW during this 'transitionary phase' of collecting risk data – and therefore are likely to represent only the next few years of DSNSW's operation. Once DSNSW completes this first regulatory cycle, its costs may change based on its findings around safety risks posed to the public by declared dams.

In Chapter 6, we recommend that DSNSW's costs should be reassessed in 3 years to account for any changes in its baseline expenditure once it has fully transitioned to the new regulatory regime. We also make recommendations on how DSNSW's efficiency should continue to be assessed over the longer-term to ensure that dam owners continue to pay only the efficient and reasonable costs for DSNSW's regulatory functions.

3.2 Total efficient costs

As noted earlier, our consultants identified that DSNSW's costs can be categorised into 16 activities, ranging from administering the regulations, to providing Ministerial advice, and to more general administrative activities. Assessing the cost build-up of each of these activities, FTI found these costs could be further divided into 3 types[12]:

- Direct costs – labour costs directly related to the regulation of each dam.
- Indirect costs – made up of corporate overheads (including IT systems, rent, and some labour costs associated with activities indirectly related to safety regulation).
- Non-levy costs – which represent the costs incurred on activities unrelated to declared dams (such as providing Ministerial advice and processing mining development consent applications).

Non-levy costs are those that FTI recommended should be excluded from the levy because they are not driven or caused by declared dam owners. These costs are instead related to separate matters of Government policy or planning. Of DSNSW's $4.59 million budget in 2023-24, FTI recommended $0.14 million[13] (or 3%) for non-levy costs.[14]

We considered FTI's recommendations, and we broadly agree with the categorisation of DSNSW's activities as direct, indirect and non-levy. In our view, it is important that the levy only represent costs that are driven or caused by the need to regulate the safety of declared dams.

With this in mind, we identified that DSNSW currently spends approximately $0.11 million[g] on declaring new dams and revoking existing declarations. This activity is sporadic and would apply only in situations where dams are entering or exiting the regulatory framework. These costs are not driven by the entirety of the current pool of declared dams, and our view is that current dam owners should not have to bear costs that they do not drive or benefit from. We consider a more appropriate means of recovering these costs could be via a fee for service on relevant dam owners.

In Chapter 6, we make recommendations on legislative amendments that could be considered for the *Dams Safety Act 2015*, including allowing some costs to be recovered via a fee for service. In lieu of any express provision allowing a fee for service at this stage, we recommend that these $0.11 million of costs also be excluded from the levy. Adding these to the $0.14 million of non-levy costs identified by FTI Consulting, we recommend a total of $0.25 million of costs that should be excluded from any dams safety regulation levy.

Based on this categorisation of DSNSW's costs, we recommend that the levy should recover a total of $4.34 million[h] from declared dam owners, while the remaining $0.25 million (approximately 6% of its budget) should continue to be funded by the Government. Table 3.2 below summarises our recommended cost recovery from the dams safety regulation levy.

Table 3.2 Costs to be included in the levy

Cost category	FTI Consulting's recommendation ($)	IPART's recommendation ($)
Direct costs	3.1 million	3.02 million
Indirect costs	1.35 million	1.32 million
Non-levy costs (to be excluded from the levy)	0.14 million	0.25 million

Note: All costs are in $2023-24 terms.
Source: IPART and FTI Consulting analysis.

Further detail about the activities inside each cost category can be found in Appendix B.

3.3 Allocating costs between dam owners

In our Issues Paper, we flagged that a key aim for this review is to recommend a levy that is as fair, efficient and affordable as possible. In designing such a levy, it is important that costs are allocated to dam owners based on the extent to which they drive those costs.

We considered different methods of allocating costs between dam owners, including by:

- dam consequence category
- dam purpose (e.g. flood mitigation, tailings, water supply)

[g] Source: IPART and FTI Consulting analysis, in $2023-24 terms. The $0.11 million includes $0.08 million of direct costs, plus $0.03 million of indirect costs associated with declaring new dams.

[h] In 2023-24 terms.

- dam owner (e.g. council, private owner, Government owner)
- number of dams owned by each owner.

Our analysis found that of all metrics, consequence category was most closely tied to DSNSW's costs of regulating each dam: higher consequence dams were found to require more regulatory effort, and therefore drive more of DSNSW's costs than lower consequence dams.

DSNSW estimated 'effort ratios' to quantify the costs driven by each consequence category. For each of its activities, DSNSW estimated the ratio of its time spent on regulating a typical low, significant, high and extreme consequence dam. For activities like safety auditing, DSNSW's estimates were based on both the likelihood of a dam being audited, and the time spent on auditing each dam. This ensured that its estimates accounted for the recurring nature of some activities, as well as differences in effort needed to undertake the same activity for different dams.

Not all activities had different effort ratios. For some activities (like educating dam owners and preparing regulatory guidelines), DSNSW estimated that its time was spent equally on all dams, regardless of their consequence category.

Table 3.3 below provides a summary of the weighted average effort spent on a typical dam in each consequence category. These ratios show that on average, DSNSW spends twice as much effort regulating an extreme consequence category dam than it does for a low consequence category dam. The effort ratios for each activity are provided in Appendix B.

Table 3.3 Estimated effort ratios by dam consequence category

	Dam consequence category			
	Low	**Significant**	**High**	**Extreme**
Number of dams	19	150	179	33
Weighted average effort ratio	1.0	1.4	1.7	2.0

Note: Weighted average effort ratios are calculated as the average of the estimated effort ratio for each activity, weighted by the total cost of each activity. Ratios are rounded to one decimal place.
Source: FTI Consulting & IPART analysis, using data from DSNSW.

The effort ratios provided by DSNSW are based on estimates of direct (labour) costs incurred in conducting each of its activities. For indirect (overhead) costs, there was no clear data indicating how costs were driven by different dams. In lieu of any such data, FTI recommended allocating both direct and indirect costs using the weighted average effort ratios provided by DSNSW.

We have considered all available evidence and agree with our consultant's recommendations on cost allocations. In our view, allocating direct costs based on DSNSW's effort ratios is a suitable method of sharing costs between dam owners, in lieu of having any other activity-based costing data. We also agree that in the absence of any data to the contrary, indirect costs should be apportioned based on consequence category effort ratios. This approach balances the need for fairness, while allocating costs to those who are the most likely drivers of them.

Recommendations

1. DSNSW's efficient costs should be set at $4.6 million per annum (in $2023-24 terms), of which:
   a. $0.25 million should be excluded from the costs to be recovered by a levy on declared dams
   b. $4.34 million should be included in the costs to be recovered by a levy on declared dams, should the Government decide to implement a levy.
2. DSNSW should continually seek to identify and implement opportunities to improve its effectiveness and efficiency, and any cost savings that are made should be retained in its Special Deposits Account. Any future review of the dams safety regulation levy should consider the surplus funds from this account in determining cost allocations between dam owners, and to offset the levy in subsequent years.

Seek Comment

1. Do you agree with the categories of costs we included in the levy (shown in Table 3.1)? Are there any other costs you consider are not driven by declared dam owners?
2. Should overhead costs be shared equally by all dam owners, or should they be apportioned on the same basis as labour costs (i.e., based on consequence category)?
3. Do you expect that the regulatory support you require from DSNSW will reduce as dam owners become more familiar with the new regulatory framework?

4 Levy design

A key role for IPART in this review is designing a levy to recover DSNSW's efficient costs of carrying out its operations – to the extent that they relate to declared dams. In designing the levy, we have applied the following 5 key principles:

1. DSNSW recovers only the costs caused by declared dams - any costs that are unrelated to declared dams are excluded from the levy, and should continue to be funded by the Government.
2. DSNSW recovers only its efficient costs - the levy should not allow DSNSW to materially over or under-recover these costs, or allow DSNSW to recover costs that have not already been assessed as efficient.
3. Costs are allocated to those who create the need for it – i.e. dams that drive more of DSNSW's costs pay a levy that is proportionate to that cost drive.
4. The levy is simple to administer - DSNSW should be able to administer the levy with relative ease, using resources already available at the organisation.
5. Dam owners have certainty on the levy amount - annual fluctuation of the levy amount is minimised as far as possible while still maintaining cost-reflectivity.

4.1 Fixed levy

As highlighted in Chapter 3, we found that DSNSW's recoverable costs are broadly divided into 2 categories: direct costs (which relate to the labour costs of regulating each dam) and indirect costs (comprising mostly of overhead costs). We also found that for many of DSNSW's regulatory activities, more effort (and therefore cost) is required to regulate higher consequence category dams. In other words, higher consequence category dams drive more of DSNSW's costs than lower consequence category dams.

Based on these findings and the principles underpinning our levy design, we recommend a fixed levy (adjusted annually for inflation) that is reflective of each dam owner's fair share of DSNSW's direct and indirect costs. If the levy is introduced, we recommend it be applied at the beginning of each financial year.

Table 4.1 below shows our recommended levy for year 1 using this approach.

Table 4.1 Recommended levy ($)

	Dam consequence category			
	Low	**Significant**	**High**	**Extreme**
Total levy	7,639	10,574	12,613	15,264

Note: All prices are in $2024-25 terms.
Source: IPART analysis.

This levy is designed to be reflective of the effort required to regulate each dam based on its consequence category. We consider this to be the most cost-reflective and fair approach to setting the levy.

Our review also considered different methods of applying the levy, including:

- Setting a fixed levy amount payable by all declared dam owners, adjusted annually for CPI.
- Setting a levy formula which DSNSW would use to calculate the levy payable by each dam owner annually. The formula would also adjust prices annually for inflation.

Under the fixed levy approach, IPART would recommend fixed levy rates which DSNSW would charge all declared dam owners. This would give dam owners certainty on their total levy amount and in its stability over the application period.

By contrast, under the levy formula approach, IPART would recommend a formula by which DSNSW could update inputs (such as total declared dam numbers) and recalculate the levy each year. In this scenario, the total recoverable amount would remain fixed so that there is no risk of DSNSW recovering funds that have not already been assessed as efficient. However, the levy on each dam owner could change between years as total declared dam numbers change.

In other words, the fixed levy approach would allow DSNSW's total recoverable budget to vary based on the number of declared dams, but the levy payable by each dam would remain fixed. Conversely, the levy formula approach would ensure DSNSW's total recoverable budget would remain fixed, but the levy payable by each dam owner could vary.

While there are certainly merits to both approaches, on balance we recommend applying a fixed levy. In our view, this offers the best balance of simplicity, accuracy and certainty to dam owners. From an implementation perspective, this approach would also be more administratively simple, and would allow DSNSW to comfortably transition to a levy-based cost recovery model without incurring material additional expenses in administering the levy. Given the relatively small scope of annual billing, we do not expect the costs of establishing or maintaining the billing system to be material relative to DSNSW's current overhead costs. Nonetheless, we recommend that any capital or set-up costs associated with implementing a billing system should be funded separately by the Government.

It is important to note that the prices recommended in Table 4.1 represent the recovery of DSNSW's *annual* costs in relation to declared dams. Should the Government decide to implement the levy, it must be applied on a whole of year basis to ensure DSNSW does not over-recover its costs. The Government must also ensure that DSNSW's current funding for declared dam activities ceases before the levy is implemented so that there is no risk of double cost-recovery. To enable a smooth transition, we recommend that any levy should be implemented at the beginning of a financial year, and that Government funding for DSNSW's declared dam activities cease by 30 June of the prior financial year.

Appendix C to this report provides a schedule of the total levy on each declared dam owner, based on our draft recommendations on the levy design.

4.2 Annual adjustments for inflation and consequence category changes

As flagged earlier, a key design principle for this levy is simplicity – both in its methodology and its administration. To maintain administrative simplicity, we recommend that:

- In any financial year, the levy should apply only to dams that are declared as at 1 July that year (i.e., a dam declared in April 2025 would begin to pay the annual levy from 1 July 2025). This would also apply to existing declared dams that are moved to a higher consequence category between billing periods. This approach would:
  - Allow dam owners some opportunity to undertake safety improvements to become de-declared (or lower their consequence rating) before the levy applies, and
  - Minimise the administrative effort needed for DSNSW to pro-rate levies and manage different billing periods.
- The levy should be escalated annually for CPI changes.[i] Our view is that excluding annual CPI adjustments may risk DSNSW under-recovering its real costs, which may in turn reduce the quality of regulatory services provided to dam owners over the longer term. Since DSNSW is still in a 'set-up' phase of its new regulatory regime, allowing full cost recovery in real terms would be a prudent way of ensuring that DSNSW is best positioned to continue delivering its services to its current standard going forward.

Box 4.1 below explains how the levy should be adjusted annually for CPI.

Box 4.1 Annual CPI adjustments to the levy

We recommend that annual CPI adjustments to the levy should apply the Consumer Price All Groups Index number for the weighted average of 8 capital cities, published by the Australian Bureau of Statistics on a quarterly basis. DSNSW should apply March-March quarter changes in this CPI number for annual adjustments to the levy.

For example, if the levy is implemented from 1 July 2025, then the applicable levy for a low consequence dam in the following years should be calculated as:

- $\text{Levy}_{25\text{-}26} = \$7{,}639 \times (\text{CPI}_{Mar25} / \text{CPI}_{Mar24})$
- $\text{Levy}_{26\text{-}27} = \$7{,}639 \times (\text{CPI}_{Mar26} / \text{CPI}_{Mar24})$
- $\text{Levy}_{27\text{-}28} = \$7{,}639 \times (\text{CPI}_{Mar27} / \text{CPI}_{Mar24})$

[i] Using March-March changes in CPI.

4.3 Performance incentives for future consideration

Earlier in this review, we flagged the possibility of including a 'performance adjustment' in the levy design. The aim of the performance adjustment would be to incentivise good regulatory compliance by rewarding a dam owner's good performance with a reduction to their levy. We noted that the potential to include this performance adjustment would be dependent on finding evidence that showed better regulatory performance would result in a reduction in DSNSW's costs.

Following FTI Consulting's expenditure review, we have found there is currently insufficient data to leverage in designing a performance adjustment, and as such have not recommended including a performance component to the levy at this stage. Specifically:

- DSNSW has indicated that there is currently no data being collected on dam owner's regulatory compliance, and there is no benchmark for 'good' or 'optimal' performance.
- DSNSW has existing powers to issue notices, initiate formal enquiries and levy fines[15] on dam owners that fail to comply with their safety obligations, which itself has the effect of encouraging good regulatory performance amongst dam owners.
- Implementing a forward-looking performance adjustment may unfairly penalise under-resourced smaller dam owners who are still in the process of adjusting to DSNSW's new regulatory regime.

While there is insufficient data to establish a performance adjustment to the levy at this stage, we recognise the merits in creating financial incentives that drive better regulatory compliance, and lower regulatory costs in the future. As such we recommend that any future review of the levy consider the feasibility of implementing a performance adjustment.

In Chapter 6, we discussed our recommendation that any revenue DSNSW receives through non-compliance fines could eventually be used as a base for this performance adjustment. This would ensure that additional regulatory effort spent on non-performers is paid for by those non-performers instead of the full declared dam owner base. We also make recommendations in that chapter on data that DSNSW should collect that could inform the implementation of a performance incentive in the future.

Recommendations

3. If the Government decides to implement a dams safety regulation levy, we have calculated a schedule of levies that varies by dam consequence category. These levies would recover DSNSW's efficient costs of regulating declared dams.
   a. Table 4.1 presents the draft schedule of dams safety levies that would apply to each dam consequence category. The levies are presented in $2024-25 terms, and would be subject to CPI adjustment on 1 July each year.
   b. The levy should be applied at the beginning of each financial year.
   c. In any financial year, the levy should apply only to dams that are declared as at 1 July that year, and the amount payable should be based on their consequence category as at 1 July that year.

d. Once implemented, the levy should be adjusted for inflation on 1 July each year, using changes in the March-March quarter CPI. Specifically, to adjust the levy from $2024-25 to $2025-26 (which would apply from 1 July 2025 to 30 June 2026), DSNSW should adjust the levy by the percentage change in the CPI from March 2024 to March 2025.

4. Should the Government decide to implement a levy, it should apply from 1 July as an annual levy. In this event, current Government funding for DSNSW should cease by 30 June of the prior financial year for all costs other than non-levy costs.

Seek Comment

4. Is a levy based on consequence category a fair way of allocating costs between dam owners?

5. What factors should a future review of the levy consider? Are there any measures of dam owner's regulatory performance that should be captured at a future review?

5 Impacts of levy for dam owners

IPART's Terms of Reference does not specifically require us to look at cost recovery options, however we note this is something that the Government will need to work through should it decide to implement the levy. As such, and recognising that cost recovery is an important issue for stakeholders, we have explored options for dam owners in this chapter.

There is a strong economic argument that dam owners pay the levy. Dam owners are best placed to manage the risks associated with their dams, and it is efficient that they face all the costs associated with dam management (including regulating their safety). However, we do consider dam owners should be able to pass the cost of the levy on to those that generated the need for the costs. That is, the parties that generate the need for the safety regulation – if it were not for them, the dam owner would not incur these costs.

For example, take water supply dams. Water customers are the reason those dams exist and need to be safety regulated (to protect the water supply), so dam owners should be able to pass the cost of that regulation on to water customers. In this case, they could add the levy cost on to water bills. Likewise, the reason that mining dams exist is to supply customers with coal/minerals etc. These customers can pay for the regulation of the safety of mining dams through a small increase in the price the dam owner charges for the product mined.

However, some local councils (and indeed other dam owners) may face challenges recovering the cost for dams they own for other purposes (e.g. flood mitigation dams). We conducted a survey of all dam owners to identify the number of dams that may be unable to cost recover. We had a relatively high response rate (58% of declared dams), and only identified a small number of cases where cost recovery may involve additional challenges.

We divided dams into 3 groups:

1. Dams where owners can recover cost from the customers or ratepayers that cause the need for the dam – this is the vast majority of dams. In almost all cases, dam owners will be able to recover the cost of the levy from customers/ratepayers through existing mechanisms such as water bills.
2. Dams that also provide services/benefits to other parties (beyond direct customers/ratepayers) – this made up just 4% of survey responses. In these cases, the parties that cause the need for the safety regulation (and therefore the levy) cannot be charged by the dam owner, for example flood mitigation dams that service multiple LGAs.
3. Dams that no longer serve a purpose – this is also a very small subset of the declared dam population (6%). Owners are unable to recover costs because there is no party generating the need for the safety regulation.

5.1 Dams that serve the direct customers or ratepayers of the dam owner

In most cases, dams supply services to customers or ratepayers (e.g. water supply, irrigation, power generation) and the dam owner charges for these services. In these cases, we think it is appropriate that dam owners include the cost of the levy in the prices they charge for these services. Ultimately, the levy cost will be borne by those that are the root cause of the levy (i.e. the party that generated the need for the dam safety regulation to exist). This group makes up the vast majority of declared dams (90% of our survey responses).

5.2 Dams that also serve third parties beyond direct customers/ratepayers

This subset of declared dams provide a service (most commonly flood mitigation) but their owners have a limited ability to pass costs onto all parties that are served by the dam. Most of these are council-owned dams which service more than one LGA (and therefore sit outside the council's ratepayer base). While the council could look to recover costs from its ratepayers, it would be unfair to pass the whole levy on to ratepayers when the dam is servicing more than just the local population. However, the council has no ability to pass the levy on to ratepayers in neighbouring council areas.

In these cases, we considered developing a simple rebate mechanism so that government would provide a 50% rebate for dams which meet key criteria:

1. The dam is providing a public benefit (i.e. is not solely for profit)
2. The dam owner is unable to recover costs from the parties that are driving the need for the dam to exist.

However, our draft decision is not to recommend a rebate.

A rebate would not solve the larger cost recovery issue

The main reason we do not recommend a rebate for these dams is that it would not solve the larger issue, that these owners are incurring costs to keep these dams running that should be passed on (or at least shared) with all parties that generate them.

The levy is only a very small component of the running costs of operating and maintaining a declared dam. Numerous submissions quoted significant maintenance costs to keep dams running each year.[j] Best practice would be that dam owners are able to reach agreements with their beneficiaries to share all dam related costs, not just the levy.

We consider that a rebate would not result in costs being recovered from the parties that are causing the need and/or receiving benefits from the dam and it may result in perverse incentives for dam owners to attempt to reclassify their dams in order to access a rebate.

[j] For instance, Cowra Council has spent $330,000 to get 4 flood mitigation dams upgraded to a level acceptable under the DSNSW regulation. Weddin Shire Council spends $100,000 annually to operate, maintain and comply with regulations for one of its declared dams.

Only a small subset of dams will face this problem

A secondary reason for not recommending a rebate is the administrative complexity it would introduce, for very little payoff. Based on our survey, only 4% of declared dams face this challenge (meaning roughly 16 of the 381 declared dams in NSW). Even the dams that could qualify would likely only have a portion of the levy rebated (recognising that in most cases, the dam owner is able to pass on a portion of costs to the efficient party).

Any rebate system established for this purpose would need to have guidelines established, a mechanism for determining which dams qualify, and a system for paying the rebate to each dam owner. All of this will need resources (either through DSNSW or the Government), and given the materiality of the levy, it does not seem reasonable to impose that administrative burden.

There are other solutions under development

There are ongoing government reviews that are looking into local councils' ability to pay these types of costs. For instance, the NSW Legislative Council's ongoing inquiry into the "Ability of local governments to fund infrastructure and services", and the NSW Productivity Commission's "Review into the funding models for local water utilities".

For local councils specifically, IPART has recently reviewed its rate peg methodology and is establishing a Council Reference Group to advise on issues relating to rate peg impacts. Should the Government decide to implement this levy, we will ensure that the levy is put on the agenda for the Council Reference Group to consider, and if the group considers the issue material, it could be considered as a special adjustment factor for affected councils in a future rate peg.[k] The Council Reference Group could also be a forum for councils to discuss wider dam cost sharing agreements in those cases where a dam provides benefits across local government areas.

5.3 Dams that no longer serve a purpose

The survey also identified 14 dams that no longer serve a purpose. Of these:

- 2 are state government owned, awaiting closure
- 4 are owned by state agencies (as an owner of last resort) which have no funds to decommission them
- 5 are owned by Councils – largely not closed due to lack of funds
- 2 are owned by WaterNSW and
- 1 is privately owned.

[k] The Council Reference Group is a consultative body and not a decision-making body. It will provide a forum for identifying opportunities for addressing current and emergent issues related to the rate peg methodology. This includes establishing a process for specific adjustment factors to be included in the rate peg for specific costs faced by councils or groups of councils where ratepayers benefit from activities generating the costs and where we have the necessary information to ascertain the quantum of these costs. For more information, see the Council Reference Group Terms of Reference.

In these cases, the dam does not provide services to customers or ratepayers that should ultimately fund the cost of the dam, including dam safety related costs. The efficient decision, therefore, may be to close the dam rather than incur ongoing maintenance and dam safety costs. From submissions to our Issues Paper, we know that many of these dams would be decommissioned if funds were available to undertake these works.

We do not consider a rebate appropriate for these dams either. We have confirmed with DSNSW that dam purpose (or lack thereof) has no impact on the regulatory effort DSNSW needs to spend on a dam. Dam owners need to trade-off between the ongoing maintenance and regulatory costs needed to ensure ongoing safety of the dam, and the one-off capital cost of decommissioning the dam. Providing a rebate would artificially lower the ongoing cost and distort the decision for dam owners.

Instead, if the Government decides to implement a dams safety regulation levy, we recommend that it also consider making funds available to assist with decommissioning dams that are local council or Government owned and no longer serve a purpose. Decommissioning these dams may result in a net benefit in terms of removing the need for ongoing maintenance and dam safety costs and also eliminating the safety risk posed by the dam for the local community.

5.4 Impacts for smaller populations

Another suggestion made in some submissions was that councils with smaller populations receive a rebate, recognising the larger per capita impact that the levy would have on their smaller rate bases. We have assessed the potential bill impact for regional customers and consider that the materiality of the levy would not warrant the administrative complexity of a rebate. The largest impact for ratepayers would be $3.38 per annum,[16] and in most cases significantly less than this.[l]

As with the owners that cannot pass costs on to the efficient party, introducing a levy will not fix the larger issue: that dams are expensive to manage, and the levy is only a small part of that. We consider that a levy rebate would only distort market forces by disproportionately reducing these costs associated with managing a dam.

5.5 Impacts on flood mitigation activities

One of the points that some stakeholders raised in response to our Issues Paper was a concern that the introduction of a levy would disincentivise investment in flood mitigation. Several stakeholders argued that local council budgets are already stretched, and a new cost (in the form of a levy) would only make flood mitigation more costly and could even mean that flood mitigation works are postponed or cancelled to avoid the levy.

[l] This is in Orange Council area. Orange Council has 4 declared dams and would face a levy of $48,412.

We consider that a levy to recover the costs of keeping a dam safe is an efficient cost to be faced by dam owners. There is an argument that if flood mitigation efforts are too expensive, they should be subsidised for the community's benefit. However, we consider that this should be done explicitly through a government subsidy, rather than implicitly through a rebate to offset the efficient costs of dam safety regulation.

Recommendations

5. The Government should consider the issue of broader dam related costs being shared between local councils where dams provide benefits across LGA lines, as part of its inquiry into local government ability to fund infrastructure.

6. The Government should consider making funds available to decommission local council and government owned dams that no longer serve a purpose.

Seek Comment

6. Are there any additional challenges around cost recovery that we have not identified and considered in the Draft Report?

6 Recommendations for the future

The final task in IPART's Terms of Reference is to recommend information that DSNSW should collect to inform future assessments of efficient costs and determination of the levy. We have identified 4 key recommendations, laid out below, and seek stakeholder views.

6.1 The levy should be reviewed in 3 years

This is the first time that IPART has considered DSNSW's efficient costs and designed a dams safety regulation levy to recover these efficient costs from owners of declared dams. As such, we recommend that the levy be independently reviewed in 2027 to consider if it is still fit for purpose. We note it is good practice to review pricing arrangements regularly and consider it particularly important in this case.

Given that DSNSW is expected to be transitioning into a more 'steady state' once it has completed the initial risk assessments by end 2026, we consider it would be timely to review DSNSW's operations, costs and the levy in 2027.

DSNSW's activities will change as the regulatory regime matures

As discussed in our Issues Paper, DSNSW is a relatively new regulator, and its operations have not yet reached a 'business as usual' phase. DSNSW has expressed that while it is currently investing heavily in education for dam owners and developing an accurate risk profile for each of the declared dams, this will change when it completes its first round of the regulatory cycle (in 2026).

We have designed the levy based on DSNSW's operations today, but it is likely that costs will shift as the regulatory regime matures. We agree with our consultant's recommendation that there be another review of expenditure once the dam risk profile is better understood. The levy should be updated to reflect DSNSW's new cost profile.

Stakeholders asked for a re-review

Submissions to our Issues Paper overwhelmingly called for another review of the levy after its implementation. Stakeholders want to ensure that only DSNSW's efficient costs are recovered by a levy, and that the levy is as fair as possible.

A number of dam owners consider that the level of regulatory support they require from DSNSW will likely change after this first regulatory cycle, and this should be reflected in the levy they pay. We note that a number of submissions explicitly call for the re-review to assess whether there should be a levy at all, noting that this is out of scope this time around.

A performance component to the levy may be feasible in the future

As discussed in Chapter 4, we have not included a performance component in our levy design at this stage. However, we consider there is merit in exploring this issue further at the next levy review when more information is available. To facilitate this, we have made specific recommendations about the data that DSNSW should collect to inform the next levy review.

6.2 DSNSW should improve data collection

As the new regulatory regime matures and as DSNSW transitions to a steady state, it is critical that it develop a solid evidence base to inform review of its efficient costs and adjustments to the levy. Therefore, we consider that DSNSW should begin collecting more specific data on how it delivers on its obligations, and should report publicly on this.

6.2.1 DSNSW should collect activity-based costing data

In designing the levy, we broke down costs according to DSNSW's key regulatory activities. It is important that as the regime matures and DSNSW's operations transition to a steady state, DSNSW builds the evidence base to inform future reviews and provide assurance that its costs are efficient and the levy is fair.

To enable this, we recommend DSNSW begin collecting timesheet data from staff which captures how each staff member spends their time. This data could then be used to calculate costs from the bottom up, showing how resources are used to deliver safe dams in NSW.

This could also be used to evaluate whether a performance adjustment is warranted. If timesheets showed that staff are spending more time on a specific subset of dam owners who are not responding to DSNSW instructions, this group could be isolated, and the extra costs be distributed between them through an extra levy charge.

Further, this data would help build a picture of how DSNSW's mix of regulatory activities is shifting as the regime matures. An independent reviewer could use the information collected between now and 2027 to develop a better understanding of what DSNSW's 'steady state' of operations looks like, and therefore what efficient costs would be.

6.2.2 DSNSW should review its efficiency regularly

DSNSW is a new regulator and is showing strong signs of maturing. We did not find evidence that its current costs are inefficient, but DSNSW should be innovative and look for ways to deliver its regulatory functions more efficiently over time.

We agree with our consultant's recommendation that DSNSW begin assessing its own efficiency by reviewing resourcing and identifying any areas it could deliver on its obligations more efficiently. Further, we recommend that another independent review in 2027 use the activity-based costing data collected by DSNSW to conduct a thorough cost efficiency review.

6.2.3 DSNSW should be transparent and report on performance

Finally, we commend DSNSW on its commitment to report its progress against goals laid out in its Strategic Plan.[17] We also note that DSNSW publishes key statistics about its operations in its annual reports.

If Government introduces this levy, it will be critical that DSNSW is transparent and accountable to the dam owners paying the levy. Stakeholders strongly argued for this in submissions to our Issues Paper, and feel that dam owners should be able to provide feedback on DSNSW's measures of success.

6.3 DSNSW's implementation of the levy and performance should be reviewed

If the Government decides to implement a levy, we consider it would be appropriate for its implementation to be audited periodically. This would be a new function for DSNSW, and it will be important to ensure that the levy is being collected and used as intended. We understand that DSNSW is financially audited annually by the NSW Audit Office (as is standard for most government agencies). One option would be to consider whether there is merit in expanding the scope of this audit to include consideration of levy revenue.

More broadly, we note that DSNSW conducts an essential role in NSW – particularly as climate change causes more frequent severe weather events. The consequence of a dam failing could be catastrophic, and as such it is important that reasonable steps are taken to ensure that DSNSW remains best placed both financially and operationally to appropriately manage dam safety risks. In California, the dams safety regulator is examined every second year, in recognition of the high risk work it conducts.[18] However, to our knowledge there has not been a performance audit conducted of DSNSW.

We recommend that regardless of whether the levy is introduced, DSNSW's performance should be periodically reviewed, to ensure that it is delivering on its obligations.

6.4 The upcoming statutory review should consider minor changes to the Act

Section 55 of the *Dams Safety Act 2015* requires the Minister to review 5 years after its commencement.[m] DSNSW has informed us that this review will commence within the next 6 months. We have identified 2 key issues that we recommend DSNSW considers as part of this review.

[m] It commenced on 1 November 2019.

6.4.1 Introduce a 'fee for service' model

At present, the Act refers to a 'levy' to be imposed on owners of declared dams. There is a question as to whether a 'levy' could be charged in the form of a fee for specific services. For instance, whether DSNSW could charge dam owners for specific audit elements each time they are performed (e.g. decommissioning a dam, or reviewing its reports). If this were possible, the levy could over time be refined so that dam owners only pay for the services they use.

Subject to appropriate regulations being made, the Act currently would allow DSNSW to collect fees for specific services from existing declared dam owners, but not from other parties. We recommend that DSNSW should consider including an explicit ability to charge other parties on a fee for service basis. This would allow DSNSW to recover costs that we have excluded from the levy (specifically, providing advice to the Minister/other government departments, and reviewing mining consent applications at the request of the Department of Planning) from the relevant parties instead of being funded through general government revenue.

6.4.2 Consider the ability for DSNSW to retain some funding from penalties

We recommend the Act review consider the merits of allowing DSNSW to retain at least a portion of any revenue it receives through penalty notices and fines from non-complying dam owners. This would ensure that DSNSW is able to recover the resources used on non-compliance, instead of including those costs in the levy (meaning that only poor performers pay, not all dam owners). In essence, it would be a kind of proxy for the dam owner performance component of the levy that we did not include in our design due to lack of data.

We recommend this revenue be directed to DSNSW's Special Deposits Account[n] (along with levy revenue), so that DSNSW can retain those funds year on year. This would ensure the funds are quarantined to use for dams safety regulatory purposes, and potentially for future levy reductions.

We note the concern that this could incentivise DSNSW to issue more penalty notices to increase revenue, however we consider this incentive can be minimised provided there are transparent and rigid guides in place to determine when a fine is issued.

Recommendations

7. The levy should be independently reviewed in 3 years. We recommend any future review of the levy consider the feasibility of applying a performance adjustment.
8. DSNSW should improve data collection, specifically around activity-based costing.
9. DSNSW's performance should be reviewed regardless of whether a levy is introduced.

[n] As provided in the *Dams Safety Act 2015* (NSW), s 40.

10. The Minister should consider pursuing amendments to the *Dams Safety Act 2015:*
    a. introducing a power to levy a 'fee for service' from persons other than declared dam owners
    b. the ability to retain funding from penalties.

Seek Comment

7. How frequently should the levy be reviewed? What factors should be considered at these reviews?

8. If a future review of the levy implements a performance adjustment (i.e. an adjustment to the levy based on a dam owner's regulatory compliance), how would this influence your activities as a dam owner?

9. What performance metrics should DSNSW publicly report on?

10. What information would give you confidence that DSNSW is using its funds efficiently?

Appendices

A Determining dam consequence category

DSNSW assigns dams a 'consequence rating' to each of its declared dams based on the potential for loss of life and severity of damage/loss in the event of a failure. It has a methodology in place which dam owners follow in calculating their own level of risk before submitting to DSNSW for an official rating.

The formula for potential loss of life is complex, borrowing from several academic papers around the world. In summary, loss of life is calculated based on factors such as type of dam failure, number of people at risk, timeliness of warning systems, flood depths, time of day, ease of evacuation, weather and availability of sensory clues.

For severity of damage, dam owners need to estimate (and provide evidence for) infrastructure, environmental and health/societal costs in the event of failure. For instance, to be classified as 'minor damage', infrastructure costs must be below $10 million, discharge must not contaminate waters, fewer than 100 people would lose access to services during recovery (amongst other criteria).

Table A.1 below sets out how declared dams are categorised by DSNSW.

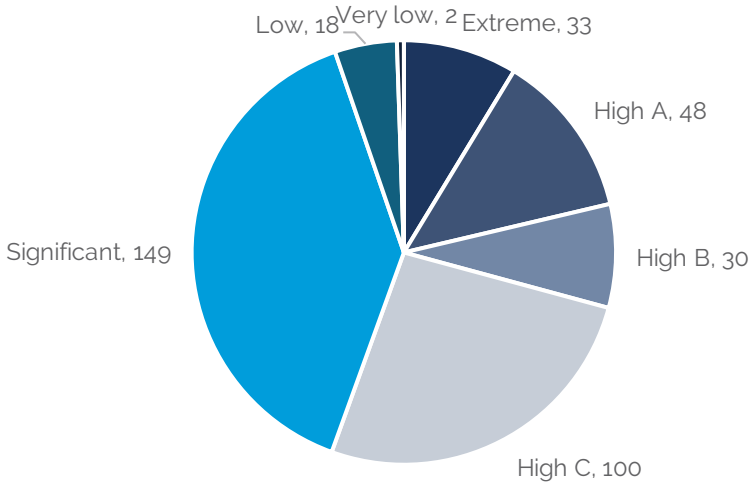
Table A.1 DSNSW consequence category assessment

Potential Loss of Life	**Severity of Damage and Loss**			
	Minor	**Medium**	**Major**	**Catastrophic**
Less than 0.1	Very Low	Low	Significant	High C
0.1 to less than 1	Significant	Significant	High C	High B
1 to less than 5		High C	High B	High A
5 to less than 50		High A	High A	Extreme
50 or more			Extreme	Extreme

Source: Government Gazette No 113 of Friday 18 March 2022

In 2022-23, DSNSW classified 33 dams as extreme risk, 327 high to significant, and 20 low risk (see Figure A.1 below).

Figure A.1 Breakdown of declared dams by consequence category



Source: DSNSW 2023 annual report

B Allocation of DSNSW costs

As discussed in Chapter 3, we categorised each of DSNSW's 16 regulatory activities as direct (directly attributable to dam owners), indirect (necessary for providing services to dam owners, but not directly linked to individual dams), or non-levy (to be paid by government).

Table B.1 Recommended allocation of costs – by activity ($)

Activity	Total cost	% recoverable via the levy	Direct costs in levy	Indirect costs in levy
Advice to Minister/Government	17,800	0	-	-
Annual dams safety standards report	67,370	100	67,370	-
Audit compliance - decommissioning	27,900	100	27,900	-
Audit compliance - design and construction	111,250	100	111,250	-
Audit compliance - operations and maintenance	586,900	100	586,900	-
Audit compliance - reviewing reports	257,650	100	257,650	-
Corporate support/overheads[a]	1,249,380	94	-	1,180,399
Dam declaration and revocation	78,200	0		-
Declaring a dam mining notification area	66,590	100	66,590	-
Develop regulatory framework and guidelines	159,370	100	159,370	-
Educate and inform dam owners	966,350	100	966,350	-
IT system build (DIMS) & maintenance[a]	144,750	94	-	136,758
Monitor dams above the safety threshold	78,450	100	78,450	-
Respond to incident reports	79,210	100	79,210	-
Respond to non-compliance	618,380	100	618,380	-
Review mining consent applications	80,450	0	-	-
Total	**4,590,000**	**94**	**3,019,420**	**1,317,157**

Note: All costs are in $2023-24 terms.

a. Approximately 6% of indirect costs (from the 'Corporate support/overheads' and 'IT system build & maintenance' items) are incurred in completing non-recoverable activities (Advice to Minister/Government, Dam declaration and Reviewing mining consent applications). Therefore, these costs have also been excluded from the levy.

Source: IPART analysis.

For each of the direct cost activities, DSNSW estimated 'effort ratios' to quantify the ratio of its time spent regulating a typical low, significant, high and extreme consequence dam. These ratios are presented in Table B.2 below. We then used the weighted average of these direct cost ratios to allocate the indirect costs (corporate support/overheads and IT systems).

Table B.2 Effort ratios – by activity

Activity	Low	Significant	High	Extreme
Advice to Minister/Government	n/a	n/a	n/a	n/a
Annual dams safety standards report	1.00	1.00	1.00	1.00
Audit compliance - decommissioning	1.00	1.00	2.00	3.00
Audit compliance - design and construction	1.00	1.00	2.00	3.00
Audit compliance - operations and maintenance	1.00	3.00	5.00	7.00
Audit compliance - reviewing reports	1.00	1.00	2.00	3.00
Corporate support/overheads[a]	-	-	-	-
Dam declaration and revocation	n/a	n/a	n/a	n/a
Declaring a dam mining notification area	1.00	1.00	1.00	1.00
Develop regulatory framework and guidelines	1.00	1.00	1.00	1.00
Educate and inform dam owners	1.00	1.00	1.00	1.00
IT system build (DIMS) & maintenance[a]	-	-	-	-
Monitor dams above the safety threshold	1.00	1.00	1.00	1.00
Respond to incident reports	1.00	1.00	1.00	1.00
Respond to non-compliance	1.00	4.00	4.00	5.00
Review mining consent applications	n/a	n/a	n/a	n/a
Weighted average	**1.00**	**1.38**	**1.65**	**2.00**

a. 'Corporate support/overheads' and 'IT system build (DIMS) & maintenance' represent indirect costs, for which no effort ratios were estimated by DSNSW. In this report, we have recommended that indirect costs be shared between dam consequences using the weighted average effort ratios for direct cost activities, as shown in the table above.

Source: IPART analysis, using estimates from DSNSW.

C Schedule of recommended levy rates

Table C.1 Recommended total levy by dam owner

Dam owner	No. of dams	Total annual levy ($)
Adam Cabot	1	7,639
AGL Macquarie Ltd	9	102,426
AK Soave Pty Limited	1	7,639
Albury City Council	2	25,225
Armidale Regional Council	2	25,225
Ashton Coal Operations Ltd	1	10,574
Aurelia Metals Limited - Hera Resources	1	10,574
Bathurst Regional Council	2	27,877
Bega Valley Shire Council	3	37,838
Bengalla Mining Company	2	23,187
BHP Billiton-Coal	3	25,853
BHP Billiton-Energy Coal	1	12,613
Big Island Mining Pty Ltd	1	12,613
Blacktown City Council	3	33,762
Bloomfield Collieries Pty Ltd	3	31,723
Blue Mountains City Council	1	10,574
Broken Hill Operations Pty Ltd	1	12,613
Bulga Coal Management Pty Ltd - Glencore	4	44,336
Burragorang Valley Coal Pty Ltd	1	10,574
Cabonne Shire Council	2	20,252
Cadia Holdings Pty Ltd	5	58,090
Camden Council	1	12,613
Campbelltown City Council	5	54,911
Castle Hill Country Club	1	10,574
Centennial Newstan Pty Ltd	1	12,613
Central Coast Council	6	76,289
Central Tablelands County Council	1	12,613
Cessnock City Council	2	23,187
Challenger Mines Pty Ltd	1	10,574
City of Newcastle Council	2	21,149
City of Parramatta	5	63,677
Clarence Valley Council	2	25,839

Dam owner	No. of dams	Total annual levy ($)
Cochrane Dam Pty Ltd	1	10,574
Coffs Harbour City Council	7	86,250
Cowra Shire Council	4	42,298
Cumberland City Council	1	10,574
Dartbrook Operations Pty Ltd	1	10,574
Delta Electricity	2	21,149
Elanora Country Club	1	12,613
Ellerston Pty Ltd	1	12,613
EMC Metals Australia Pty Ltd	2	25,225
Endeavor Operations Pty Ltd	1	10,574
Energy Australia | Mount Piper Power Station	2	27,877
Essential Water	2	23,187
Eurobodalla Shire Council	3	35,800
Evolution Mining Ltd	4	42,298
Fairfield City Council	11	128,548
Forest Grove Community Association	1	10,574
Generator Property Management Pty Ltd	2	23,187
Glen Innes Severn Council	1	10,574
Glencore Mt Owen Pty Limited	2	21,149
Glencore Ravensworth Operations	3	33,762
Goulburn Mulwaree Council	2	27,877
Greater Sydney Local Land Services	1	15,264
Greater Sydney Parklands Trust	1	10,574
Greenspot Developments Pty Ltd	1	12,613
Hawkesbury City Council	1	12,613
Hillgrove Mines Pty Ltd	3	35,800
Hilltops Council	1	10,574
Hunter Water Corporation	4	49,026
HV Operations Pty Ltd	4	39,363
Icon Water Limited	1	15,264
Illawarra Coke Company	1	10,574
Inner West Council	1	12,613
Inverell Shire Council	1	12,613
Kempsey Shire Council	1	12,613
Kiama Municipal Council	1	12,613
Killara Golf Club Ltd	1	12,613

Dam owner	No. of dams	Total annual levy ($)
Ku-ring-gai Council	1	10,574
Kyogle Council	1	12,613
Lake Macquarie City Council	3	31,723
Liddell Tenements Pty Ltd	1	7,639
Lithgow City Council	2	27,877
Liverpool City Council	11	136,701
Liverpool Plains Shire Council	2	20,252
MACH Energy	3	35,800
Macquarie Coal Pty Ltd	1	10,574
Mangoola Coal Operations Pty Ltd - Glencore	3	35,800
Manuka Resources Limited	1	10,574
Matt Crossingham	1	10,574
Maxwell Ventures (Management) Pty Ltd	1	10,574
Metals Acquisition Limited	1	10,574
Midcoast Council	1	10,574
Mid-Western Regional Council	1	12,613
Mineral Hill Limited	2	18,214
Muirfield Golf Club Limited	1	10,574
Murray-Darling Basin Authority	2	27,877
Nambucca Valley Council	1	12,613
Narambulla Partnership	1	10,574
Narrabri Coal Operations Pty Ltd	1	10,574
Northparkes Mines	5	63,063
NSW Department of Industry - Lands	3	30,826
NSW Department of Primary Industries	1	10,574
NSW National Parks and Wildlife Service	1	10,574
Orange City Council	4	48,412
Origin Energy Limited	2	25,225
Parkes Shire Council	2	18,214
Peak Gold Mines PTY LTD	1	10,574
Penrith City Council	2	23,187
Perilya Broken Hill Limited	1	10,574
Port Macquarie Hastings Council	2	27,877
Queanbeyan-Palerang Regional Council	1	12,613
Ravensworth Operations Pty Ltd	1	10,574
Redbank Mines	1	7,639

Dam owner	No. of dams	Total annual levy ($)
Rous County Council	2	25,225
Santos NSW (Eastern) Pty Ltd	1	10,574
Shellharbour City Council	4	42,298
Shoalhaven City Council	4	39,363
Snowy Hydro Limited	15	185,443
Snowy Valleys Council	1	12,613
South32 Ltd	1	10,574
Springvale Coal Pty Ltd	1	10,574
Stockland	1	10,574
Sunshine Reclamation Group	1	7,639
Sutherland Shire Council	1	7,639
Sydney Water Corporation	16	190,186
Tamworth Regional Council	3	37,838
Tarago Operations Pty Ltd	5	63,063
Tenterfield Shire Council	1	12,613
The Hills Shire Council	2	23,187
The Owners - DP 270644	1	12,613
The Owners of Lot 1 DP 285400	1	10,574
Tomingley Gold Operations Pty Ltd	3	33,762
Transport for NSW	2	23,187
Transport for NSW - RMS (East West)	1	10,574
Tritton Resources Pty Ltd	1	10,574
Tronox Mining Australia Limited	1	10,574
Tweed Shire Council	1	12,613
United Collieries Pty Ltd	1	10,574
University of New South Wales	1	10,574
Upper Hunter Shire Council	1	12,613
Upper Lachlan Shire Council	2	23,187
Uralla Shire Council	1	10,574
Veolia Environmental Services (Australia) PTY Ltd	1	12,613
Visy Pulp & Paper	3	33,762
Vitalharvest Pty Ltd	1	10,574
Wambo Coal Pty Ltd	3	33,762
Warrumbungle Shire Council	1	12,613
Water Administration Ministerial Corporation	1	10,574
WaterNSW	40	539,107

Dam owner	No. of dams	Total annual levy ($)
WCX M5 PT Pty Ltd	2	25,225
Weddin Shire Council	1	12,613
Werris Creek Coal Pty Ltd	3	31,723
White Rock Minerals (MTC) Pty Ltd	2	23,187
Whitehaven Coal - Narrabri Mine	1	10,574
Wilpinjong Coal Pty Ltd	2	21,149
Wingecarribee Shire Council	3	33,762
Wollongong City Council	8	92,748
Wollongong Resources Pty Ltd	1	12,613
Yancoal - Stratford Coal	3	37,838
Yancoal Australia - Mt Thorley Warkworth Operations	5	58,987
Yancoal Australia Ltd	1	12,613
Yass Valley Council	1	12,613

Note: All prices in $2024-25 terms.
Source: IPART analysis.

1 Dams Safety NSW, Annual Report 2022-23, p10.
2 Dams Safety NSW, Annual Report 2022-23, p10.
3 Response to IPART data request.
4 KPMG, *Review of the Dams Safety Act 1978 and Dams Safety Committee*, 2013, p 47.
5 SIRA, *Annual Report 2022-23*, 2023, p 98.
6 Australian Maritime Safety Authority, Marine navigation levy.
7 Based on consultation between IPART and the Californian Department of Water Resources.
8 World Bank Group, *Laying the Foundations: A Global Analysis of Regulatory Frameworks for the Safety of Dams and Downstream Communities*, 2020, p 210.
9 FTI Consulting, *Dams Safety NSW Expenditure: Review of efficient expenditure related to declared dams*, July 2024, p 29.
10 FTI Consulting, *Dams Safety NSW Expenditure: Review of efficient expenditure related to declared dams*, July 2024, p 37.
11 Dams Safety NSW, Dams Safety NSW Strategic Plan 2022-27.
12 FTI Consulting, *Dams Safety NSW Expenditure: Review of efficient expenditure related to declared dams*, July 2024, pp 13-14.
13 IPART and FTI Consulting analysis, in $2023-24 terms.
14 FTI Consulting, *Dams Safety NSW Expenditure: Review of efficient expenditure related to declared dams*, July 2024, p 19.
15 *Dams Safety Act 2015* (NSW), s 35, ss 42-46.
16 IPART analysis, IPART rate peg model 2024-25.
17 Dams Safety NSW, Dams Safety NSW Strategic Plan 2022-27.
18 Based on consultation between IPART and the Californian Department of Water Resources.

ISBN 978-1-76049-751-4