



Mines Rescue Levy

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1. Regulatory Impact Statement

1.1. Agency disclosure statement

This Regulatory Impact Statement has been prepared under the direction of the Ministry of Business, Innovation and Employment (MBIE). It provides analysis of the options for funding the New Zealand Mines Rescue Service (MRS).

While Cabinet has agreed to implement the recommendations of the Royal Commission on the Pike River Coal Mine Tragedy (the Royal Commission), the final details of the MRS levy arrangements have been under discussion between industry, Ministry specialists, and other stakeholders. The Ministry has focused on the cost associated with Recommendation 15, which found that the Act did not sufficiently reflect the functions of the MRS and its levies were not adequate or fair.

The analysis focuses on the economic, fiscal, compliance and social costs. Cultural and environmental costs are not covered.

The analysis examines four options. These are

- (1) the status quo – which is a continuation of the MRS in its current form. This was not actively pursued since it did not meet the Royal Commission's objectives i.e. it would not cover current costs, focused on coal only and did not charge non-levy payers the full costs of the service provided
- (2) the discussion paper option - which used the approach of multiplying workers/production by a risk weighting and adjusting annually using Statistics New Zealand indexes less an efficiency factor. This was relatively simple to operate and fully cost recovered but did not adequately deal with the industry volatility or the fixed costs associated with emergency preparedness (required irrespective of mine production or numbers of mine workers)
- (3) the industry option - which allowed for annual review of the costs and split the levy equally into fixed (emergency preparedness) and variable components (emergency response and readiness), using risk weighting only for the latter. The industry proposal also incorporated a large/small mine split. However, this split does not properly match potential levy payer use with the individual levies when taking account of proportion of workers in large mines, and in particular disadvantages small mines
- (4) the MBIE option (the preferred option) - which follows the industry approach for annual review of costs and splitting into emergency preparedness and emergency response and readiness components. However, the MBIE option has a single rate for emergency preparedness (except for a group of the smallest mining operations) as the costs are similar, and levies the industry for emergency response on the basis of "risk adjusted" mine workers (i.e. the risk weighting multiplied by the actual number of mine workers).

The preferred option (option 4) will ensure that the MRS meets the following criteria:

- that it meets international best practice¹ and fully cost recovers from the industry
- develops a charging regime that approximately matches potential MRS use to participants' levy payments

¹ Only regulatory initiatives effectively implemented by the United Kingdom or Australia were considered, since their health and safety regulatory approach is similar to New Zealand's.

- provides a durable solution that is relatively simple to operate delivering a service at least cost
- delivers a funding regime that is generally acceptable to participating levy payers.

More specifically, the option proposes new regulations for allocating the MRS levy to reflect: increased MRS involvement in mines emergency preparedness, the extended coverage to all coal mines, underground metalliferous mines and major construction tunnels, and weighting the costs to those operations most likely to need the MRS services. It also ensures that MRS training is fully cost recovered, and that the MRS has adequate resource as the industry expands and contracts.

The proposals will not impair property rights or market competition. There may be a potential impact on the ability of firms to innovate as they have done in the past because of the higher costs associated with a new health and safety regime. However, the new safety regime may also stimulate new ways to innovate as the industry improves its safety outcomes.

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2. Background and context

Mines rescue is a specialist area of search and rescue carried out by the MRS. Established in the 1930s following the Dobson mine explosion it provides emergency services to the mining industry. No other organisation within New Zealand has the specialist capabilities of MRS or its ability to improve the overall consistency of emergency response for coal mining, underground mines and tunnels. The specialist capabilities include the use of long duration breathing apparatus (three or four hours), mine rescue skills and equipment, and gas monitoring equipment and analysis.

2.1. Health and safety regulation activities

Those companies involved in mining need to manage a series of hazards. These range from occupational safety hazards, which give rise to incidents that primarily affect one worker through to major accidents, which have effects that can result in multiple injuries and fatalities as well as substantial economic, property, and environmental damage. It is a constant challenge for companies, regulators, workers and the MRS to manage the risks that may lead to such an event.

As part of this health and safety nexus, the MRS provides specialist mine rescue services. The MRS is a charitable trust recognised by the Minister of Labour, set up under the Mines Rescue Trust Act 1992 (the MRT Act). The MRT Act sets out functions, provides a governance framework (a board representing levy-payers, and some mechanisms for high-level government oversight), and provides for a levy on coal mining to fund mines rescue functions.

The trust collects the levies, which cover the training and equipment of specialist rescue teams and the maintenance of a rescue capability. In emergencies, the MRS mobilises the rescue teams and provides advice to mine operators, on a user pays basis. The MRS also provides services to other non-levy paying organisations, which are only partially cost recovered.

2.2. Responding to the Royal Commission

Royal Commission Recommendation 15 found that the MRT Act did not sufficiently reflect the functions of the MRS and that its levies, currently specified in the Act as set amounts per tonne of coal produced by different types of coal mine, were not adequate or fair.

The Royal Commission recommended that a review of funding of the MRS should be undertaken in consultation with the MRS and the industry. Specifically, the review should address the funding shortfall and provision for annual adjustments because of cost increases.

Cabinet agreed to implement the Royal Commission's recommendations, and also agreed that further agreed that the recommendations should apply to all mining, not just underground coal mines.

There is currently a Bill before Parliament to amend the MRT Act based on Recommendation 15, the Health and Safety (Pike River Implementation) Bill (the Bill). Part 3 of the Bill will replace the MRT Act and with a new Mines Rescue Act. The proposed amendments enable a more flexible process for an adequate and fair levy by moving the levy-setting into regulation. The levy changes are expected to become operational between 1st April and 1st July 2014.

To balance the reduction in certainty about the rate of the levy, the Bill enhances the administrative mechanisms for levy payers to maintain oversight of both the funding and quality of the service. This includes consultation requirements before setting annual costs, notifying levy payers of estimated costs and financial statements, and ensuring a board that is

representative of levy payers. This is to ensure a self-regulating mechanism for industry and by industry.

The Bill clarifies the core functions of the MRS that are funded by the levy as:

- a. assisting mine operators in emergency preparedness, including by developing, reviewing and testing mine operators' emergency management plans, and
- b. providing training, equipment and resources for mines rescue brigades to ensure that brigades have the capacity and readiness to respond to emergencies

The Bill also extends the coverage of the MRS to include the whole coal sector, all underground metalliferous mines and larger tunnels, to make more effective use of the MRS's specialist skills across the mining sector and provide a level of social assurance that safety levels meet best practice. For the MRS this means extending their services to underground metalliferous mines and larger tunnels, as the expertise of the MRS in irrespirable atmospheres means it can add value in these areas.

2.3. Mines Rescue funding review

Internationally, current regulatory approaches started with the Piper Alfa tragedy (1988) in the North Sea. It caused a major re-think which led to a more active involvement by regulators in high hazard industries relative to other health and safety hazard categories.

In New Zealand, there are a number of drivers for the review of the MRS levies:

- the Pike River mining tragedy
- the subsequent Royal Commission report recommended a levy review since the MRS is not funded properly through the industry levies it collects
- the Cabinet wanting to ensure that the whole mining sector is able to control the health and safety risks to a level considered by the Royal Commission as best practice
- the sizeable reserves of minerals in New Zealand and the challenges in mining those reserves.

The consultation process with MRS and industry ran in parallel to the development of the draft Regulatory Impact Statement.

3. Objectives

The Pike River tragedy and the subsequent Royal Commission's findings have shaken public confidence in the high hazard health and safety regime. As part of a package to restore social assurance in the high hazard safety regime, the MRS requires a capability to:

- cost recover at an adequate minimum level. The adequate minimum standard requires strengthening and increasing the consistency of emergency preparedness across the industry to meet the best practice demands stipulated by the Royal Commission
- develop a charging regime that matches potential MRS use with levy payment. Every effort should be made, through preparedness and capability, to mitigate against injury and loss of life once an accident occurs
- develop a durable service that minimises complexity
- ensure acceptability by the levy participants.

This involves ensuring that the MRS is fully cost recovered with no significant cross subsidies, and operated at least cost.

4. Options analysis

4.1. Competent mines rescue service

When a major emergency happens, a lack of emergency preparedness can contribute to a higher loss of life, environmental damage and commercial losses relative to a situation where those services were not available or only partially funded. This includes a lack of training prior to an emergency and the provision of a skilled rescue team in an emergency.

Training is an integral part of controlling the health and safety risks associated with mining. MRS's role in liaising with mine staff and management and checking and verifying safety plans and procedures is a critical part of an overall package of health and safety activities, and is being strengthened under the new mining regulations.

In the event of an accident, the MRS's emergency response is crucial in minimising further loss of life and injury.

4.2. Problem definition

A number of issues have driven the review of MRS levy:

- the MRS has consistently not fully cost recovered full costs since its inception in 1992, therefore reserves have slowly dwindled
- the expenses incurred by participating in the Pike River Royal Commission have only been partial recovered, decreasing reserves at a faster rate
- the expectations from Cabinet that a consistent and durable health and safety regime should extend across all of the mining sector and other areas where the MRS has specialist expertise (e.g. including major construction tunnels)
- the MRS does not fully recover its costs from all of its services, therefore the current regime cross subsidises some users.

Because of these issues, the Royal Commission recommended that a review take place of the adequacy and fairness of the current funding model as part of the Mines Rescue Trust Act.

4.3. International best practice

The Royal Commission pointed to the Australian mining industry health and safety systems and processes as being best practice. While mines rescue in Australia has legislative differences (i.e. it is a wholly owned private company), the functions performed are similar.

In New South Wales, inspectors from the company have broad powers to enter and search premises, take photographs and inspect records. Rescue brigades are under the control of the designated company. This company can determine for each underground mine the number of people who must be available for mines rescue, the kind of equipment required, and the space and facilities the mine must provide for storage of such equipment.

Queensland's legislative approach differs slightly again but its purpose and functions are the same as New South Wales i.e. The Coal Mining Safety and Health Act 1999 provides for the accreditation of corporations to provide mines rescue services. Those services are provided by a non-profit company, the Queensland Mines Rescue Service Ltd (QMRS).

4.4. Options

Below we have set out the various approaches considered to compare and contrast the different options. These have been set out in standard headings to identify the value of each option and the differences between the various options. Of particular interest is teasing out the importance of cost effectiveness relative to social assurance that best practice is being consistently applied across the industry over time.

We do not attempt to quantify any environmental or cultural costs and benefits of the options.

4.4.1. Option 1: Status Quo

Cost recovery

The status quo represents a continuation of current practice where the owners of underground and open cast coal mines within defined rescue areas are paying volume based levies to support the MRS based on the likely risk of an emergency. This only partially covers the costs for MRS preparedness and training activities, and does not reflect the breadth of the service that they provide or could provide to the wider mining industry.

In this environment, the core funding services are likely to be funded to the level of approximately \$700,000 spread amongst the underground and open cast coal mines.

Charging regime

The levy charging regime is based on production and graduated by risk. Currently, the charges are:

- 40 cents per tonne for underground coal
- 20 cents per tonne for open cast with old underground workings
- 10 cents per tonne for open cast.

The volume based levy potentially has been used because it is easily verifiable and accurately gauges the size of the industry at any one time.

The difference in levy reflects different risk. The graduated risk approach to coal mining has also been applied. The risk profile reflects the increased safety risk of underground coal mining, due primarily to problems associated with mine ventilation and the potential for mine collapse.

Therefore, the higher cost per tonne reflects those underground coal mining risks relative to open cast with old underground workings and open cast coal mining. However, there are safety risks associated with all forms of coal mining, not least because of the heavy machinery utilised in coal excavation, therefore specialist training is required right across the coal mining industry.

Emergency preparedness training in mines is covered by a core levy. The MRS has been running down their reserves, therefore the current levy funding is not enough to sustain current training activities. Other training – such as KiwiRail tunnels or other long tunnels – has been charged out on the variable costs of training only. This has the effect of cross subsidising their training out of reserves and from levy payers.

Under the Status Quo there is no annual increase to take account of increased staff and equipment costs, the levy is solely volume based (with an adjustment for risk).

Summary

The MRS is unlikely to meet international best practice requirements and there are likely to be substantial safety gaps in preparedness, training, and emergency response. While not

providing social assurance, it will however be a cost effective option. The \$700,000 total annual levies collected is roughly half what is estimated to be required to operate a best practice service that covers all mining activities under the proposed regulations.

4.4.2. Option 2: Worker/production based approach²

Cost recovery

Under the production/worker based option the MRS's annual costs would be fully recovered based on the annual costs of providing the service (note that in the Discussion Document this was estimated by the MRS at \$1.374 million. This has been adjusted slightly so that comparison can be made with other options to \$1.5 million annually – see Appendix A).

Charging regime

Operators of coal mines, underground metalliferous mines and larger tunnels would pay a levy rate was based on:

- either the annual production (tonnes of coal, kilograms of metal, tonnes of rock moved) **or** the number of mine workers at risk in a mining operation, multiplied by
- a risk factor adjusted for difference types of mining operation determined by their likely usage of the service, and
- a mechanism that would self-regulate over time by including an appropriate annual index (based on Statistics New Zealand indexes minus an efficiency factor).

The mechanism proposed also incorporated a change to how costs are recovered from non-levy payers so that they pay the full costs of using the MRS, including their share of the MRS fixed costs. This would mean that levy payers were no longer subsidising the services provided by non-levy payers.

Summary

There is potential for the MRS to meet international best practice requirements since the MRS will be fully funded. Preparedness, training, and emergency response will be covered by this option.

However, there is concern that the mechanism is too inflexible for a volatile industry and more importantly that the proposal did not reflect the fixed cost component associated with the levy e.g. all mines are required to be at a certain level of safety preparedness irrespective of production and mine worker numbers. Therefore, there is a question as to whether each mine levy would match potential MRS use.

The production approach also did not reflect the level of risk at each mine. A more capital intensive (and possibly more innovative) mine may have less mine workers at risk but would be charged the same levy as a more labour intensive mine.

4.4.3. Option 3 industry approach

Cost recovery

The industry option is a full cost recovery approach with estimated costs of \$1.5 million annually. It differs from options 1 and 2 in that the costs are assessed annually, and it has a fixed cost and variable cost component.

² Based on the worker levy approach set out in the Mines Rescue Discussion Paper (2013) <http://www.mbie.govt.nz/pdf-library/what-we-do/pike-river/Review%20of%20the%20Mines%20Rescue%20Service%20Levy.pdf>

Charging regime

Key elements of the industry proposal are:

- MRS total estimated annual costs are split equally between the costs for the two core levy-funded services: emergency preparedness and emergency response readiness (each estimated at approximately \$750,000)
- large mines would pay twice as much as small mines in each category
- a fixed flat rate for emergency preparedness, – the rationale being that assisting mine operators with emergency planning is not risk dependent, i.e. it would take a similar amount of time and resources for the MRS to assist a small underground coal mine with emergency preparedness as a small opencast coal mine (see Table 1)
- a risk weighting approach similar to option 2 is proposed which reflects the extent to which a mining operation might need MRS services (see Table 2)
- the proposal focuses on at risk mine workers only. However, the industry proposal simplifies the approach by using a large/small split, i.e., whether:
 - an underground mine had more or less than 30 mine workers
 - an opencast mine had more or less than 50 mine workers
 - a tunnel had more or less than 20 mine workers.

The MinEx submission provided an indicative table, summarised below, showing the estimated rates operators at the workshops considered different types of mining operation would be prepared to pay based on the estimated \$1.5 million costs.

Table 1 Industry option: indicative table of cost allocation

Type of mining operation	Risk component		Fixed component		Total operator levy	
	Large	Small	Large	Small	Large	Small
Descending order by risk/need for MRS service						
Underground coal mines	\$150,000	\$75,000	\$40,000	\$20,000	\$190,000	\$95,000
Underground metalliferous mines	\$52,500	\$26,250	\$40,000	\$20,000	\$92,500	\$46,250
Tunnels – non TBM (tunnel boring machine)	\$52,500	\$26,250	\$40,000	\$20,000	\$92,500	\$46,250
Opencast coal mines with underground workings	\$37,500	\$18,500	\$40,000	\$20,000	\$77,500	\$38,500
Tunnels – TBM	\$30,000	\$15,000	\$40,000	\$20,000	\$70,000	\$35,000
Mines in care and maintenance	\$26,250	\$26,250	\$40,000	\$20,000	\$66,250	\$46,250
Opencast mines with no underground workings	\$15,000	\$7,500	\$40,000	\$20,000	\$55,000	\$27,500

Source: MinEx submission

The industry has also made small modifications to the risk weightings in the Discussion Document. Table 2 sets out the comparison between options 2 (the risk presented in the discussion paper) and 3. The risk-weightings are intended to reflect the different needs for the MRS between different sectors, and reflect that underground coal most needs the service. It

should be stressed that these risk weightings are approximate but give a current best estimate of the likely risks.

Note also that the risk weightings alone do not give an indication of the size of the need for MRS services. They need to be considered alongside the number of mine workers. This is done in the industry proposal by combining risk weighting with a small/large variable.

Table 2 Risk comparisons

Mining operation	Industry proposal (option 3)	Discussion paper proposal (option 2)
Underground coal mines	1	1
Underground metalliferous mines	0.35	0.35
Tunnels – non-TBM (tunnel boring machines)	0.35	0.35
Mines in care and maintenance	0.35	-
Opencast coal mines with underground workings	0.25	0.2
Tunnels – TBM tunnels	0.2	0.35
Opencast coal mines with no underground workings	0.1	0.2

Source: Discussion Paper and Industry submissions. <http://www.mbie.govt.nz/pdf-library/what-we-do/pike-river/Review%20of%20the%20Mines%20Rescue%20Service%20Levy.pdf>

Summary

The industry proposal has the potential for the MRS to meet international best practice requirements since the MRS will be fully funded. Preparedness, training, and emergency response will be covered by this option.

However, concern was raised over the split between small and large mining operations as being too arbitrary and did not reflect the use of MRS services to the point where smaller operations were significantly cross subsidising larger operations. The split assumes that large operations have twice the risk of small ones, when they have 80 percent of the mine workers.

4.4.4. Option 4: MBIE proposal (preferred option)

Cost recovery

The Ministry's proposal is a full cost recovery approach with estimated costs of \$1.5 million annually. It differs from options 1 and 2 in that it has a fixed and cost variable cost component but is similar to option 3 i.e. it sets costs annually, and adopts the fixed/variable split and the industry's risk weightings.

Charging regime

Key elements of the industry proposal are:

- MRS total estimated annual costs is split equally between the costs for the two core levy-funded services: emergency preparedness (fixed levy) and emergency response readiness (each estimated at approximately \$750,000)
- the variable emergency response readiness component incorporates the industry risk weightings (from option 3)

Specific changes from the industry approach (option 3) are:

- the emergency preparedness component is the same for all mines, except for a group of the smallest operations (excluding underground coal) that would pay a third (industry call this group “micro” operations, and it means underground metalliferous and tunnelling operations with under three workers, and opencast operations with under six workers)
- the variable levy for emergency response readiness is directly proportional to the number of mine workers rather than based on a split between small and large operations.

Combining risk weightings with mine workers (rather than a small/large split as in the industry proposal) generates a “risk-adjusted” number of mine workers, e.g.:

- an underground coal mine with 10 mine workers and a risk weighting of 1 has 10 “risk-adjusted” mine workers
- an opencast coal mine with no underground workings with 50 mine workers and a risk weighting of 0.1 has 5 “risk-adjusted” mine workers.

Summary

The Ministry’s proposal has the potential for the MRS to meet international best practice requirements since the MRS will be fully funded. Preparedness, training, and emergency response will be covered by this option.

It is the preferred mechanism because it more accurately matches levy payments to potential use of MRS services. It recognises the requirement for a fixed cost service, the size of the mine and various risk factors in calculating the levy payment distribution.³

4.4.5. Implications of the various options

The status quo (option 1) was not considered viable since it did not meet the requirements for an international best practice MRS recommended by the Royal Commission and agreed by Cabinet.

The production/mine worker (option 2) approach while being viable under the Royal Commission’s recommendations has some drawbacks since it does not recognise the fixed cost component of safety requirements – these are required irrespective of the number of mine workers at risk or mine production.

Potentially, by not having explicit fixed costs for MRS preparedness activities incorporated into the levy structure option 2 creates a mismatch between use of MRS services and levy payment – small mines will have to spend proportionately more on safety preparedness because their standards and safety infrastructure are not as high as larger mines. This is a major structural fault that negates the viability of option 2. The industry also saw drawbacks to the discussion paper approach because of the current volatility in the industry and sudden increases in levies as players exited the industry.

Unlike option 2, options 3 and 4 differentiate between the two types of levy-funded service provided by MRS, recognising that there is a difference between the extent to which the services are risk dependent. This creates a more accurate distribution that reflects the likely use of MRS services.

Options 3 and 4 deliver a well-functioning service, with a mechanism that is flexible enough to respond to the volatile mining industry. Both options direct a larger share of costs to

³ In testing out the various approaches the Ministry also examined variations on the split between small and large mines suggested in option 3 by banding levy payments depending the number workers (i.e. mines between 1 and 5 workers paid X amount, mines between 5 and 10 workers paid X+1 etc.). It was found that by using the actual number of workers (rather than bands of workers) more accurately reflected the likely use of MRS services.

underground coal mining, which is appropriate given that this is the sector with the highest need for the service. Both use the agreed industry risk weightings.

Both options 3 and 4 will broadly meet Royal Commission requirements, although we consider that option 4 provides a more accurate matching of levy payment to MRS use.

Specifically option 4:

- Has, with the exception of “micro” operations, a single rate across all mines for emergency preparedness, rather than a large/small split which is a feature of option 3. While large mines may have more complex requirements, they correspondingly tend to have better systems and processes in place, and tend to have better internal resources. For smaller mines it is likely that the MRS will need to take more of a lead role in assisting them with emergency preparedness. For these reasons the single rate better reflects the potential use of MRS services by levy payers. The very small operations will pay one third of this rate as the full rate could significantly affect their viability
- makes the levy for emergency response readiness proportional to the number of mine workers rather than based on a large/small split. The number of mine workers is taken as a proxy for need of the MRS. The industry proposal simply assumes that larger operations should pay twice the levy of smaller operations, however, the large operations have between them four times the number of risk-adjusted mine workers. The effect is that larger operators are assuming considerably less than their proportional share, which is instead transferred to small operators. This explains the particularly low figures under the industry proposal for the large mines, in particular the opencast and gold mines.

Table 3 provides an indication of the allocation of the levy based on the \$1.5 million estimated MRS costs in:

- option 1: the status quo
- option 2 the discussion paper
- option 3 the industry proposal with a split between emergency preparedness and emergency response
- option 4 the Ministry’s preferred option with a split between emergency preparedness and emergency response

It also shows the number of mine workers and, for coal mines, their current levy payment. Appendix 1 sets out the full comparison for all potential levy payers.

Table 3 Sample comparison of options (\$NZ)

Mine operation sample	Mine workers at risk	Option 1 - Current levy (status quo)	Option 2 – Discussion paper option*	Option 3 - industry option		Option 4 – Ministry’s preferred option	
				Emerg. Prep. (fixed)	Emerg. Resp. (variable)	Emerg. Prep. (fixed)	Emerg. Resp. (variable)
Huntly East, underground coal	72			34,884	122,951	24,752	127,193
Total levy		147,390	254,387	157,835		151,946	

Mine operation sample	Mine workers at risk	Option 1 - Current levy (status quo)	Option 2 – Discussion paper option*	Option 3 - industry option		Option 4 – Ministry's preferred option	
Terrace, underground coal	8			17,442	61,475	24,752	14,133
Total levy		1,220	28,265	78,917		38,885	
Fraser, underground gold	160			34,884	43,033	24,752	98,928
Total levy		-	197,857	77,917		123,681	
Stockton, opencast coal**	455			17,442	12,295	12,376	80,379
Total levy		105,800	160,758	29,737		92,755	
Cascade, opencast coal with u/g workings	5			17,442	15,369	8,251	2,208
Total levy		4,260	4,416	32,811		10,459	
Rotowaro, opencast coal with u/g workings	125			34,844	30,738	24,752	55,206
Total levy		65,630	110,411	65,621		79,958	
Large tunnel	100			34,884	24,590	24,752	35,332
Total levy		-	70,663	59,474		60,084	
Small tunnel	10			17,442	12,295	24,752	3,533
Total levy		-	7,066	29,737		28,286	
Spring Creek, underground coal in care and maintenance	10			17,442	18,443	24,752	5,300
Total levy		-	10,599	35,884		30,052	

*The Discussion paper levies are based on the worker approach.

** The Stockton operation also has parts with underground workings, but will only pay a single emergency preparedness fee. This fee is therefore split over the two parts of the operations and so the figures in this table are half of the fee that the other operations pay.

Source: Ministry of Business, Innovation and Employment

4.4.6. Summary

There is no “right” answer for the levy distribution, and industry has accepted that some cross-subsidisation will be needed. All parties agree that risk and the need for the service should be factored in, and that underground coal mines should bear a larger share. Implicit in the fixed emergency preparedness element of the levy (whether at a single or split rate) is that all mines should make a reasonable contribution to the costs, and that there should not be a gross variance between the levy rates. The risk weightings and size variable also indicate that underground operations and larger sized operations should pay proportionately more.

Table 4 sets out a summary of the options against four criteria developed in the objectives (Section 3).

Table 4 Summary

	Option 1: Status Quo	Option 2: Production/ Workers approach	Option 3: Industry approach	Option 4: Ministry option (preferred option)
Cost recovery: Fund an adequate minimum mines rescue service	No	Yes	Yes	Yes
Charging regime: Matches MRS use with levy payment	No, only coal mines pay, variable charged only for non-levy payers	No fixed cost component that recognised the need for safety process irrespective of size/mine worker numbers	Unsure, since option 3 advantages larger mines.	Yes, better reflects MRS use by levy payers
Durability: compliant with financial guidelines, reduced complexity	Simple to operate, confined to coal mines	Simple to operate	Simple to operate, although potentially there is increased costs keeping track of the number of mine workers	Simple to operate, although potentially there is increased costs keeping track of the number of mine workers
Acceptability to levy papers	No, too narrowly focused	No, industry is too volatile	Yes, although small underground mines may not be viable	Yes, although larger mines will not like paying more than Option 3

Source: NZIER and MBIE

5. Consultation

The consideration of the levy was examined by the Royal Commission. Feedback on the MRS has been considered as part of the Royal Commission’s findings.

Cabinet’s commitment to implement the Royal Commission’s recommendations includes a decision on the MRS levy. However, the Bill to make changes to the Health and Safety in Employment Act 1992 (the Act) has already been introduced prior to the completion of industry consultations. Feedback from the consultation on the Bill occurred parallel to the development of the options and has assisted option development. Further consultation on a specific levy mechanism was undertaken on a Discussion Document, which included workshops with MBIE, the MRS and industry.

6. Impact

The new regulations are designed to control the risks of individual and multiple injuries and deaths over the long term. Changes to the MRS are part of an integrated package of health and

safety measures that are subject to regular robust monitoring and verification and five yearly reviews.

The MRS part of the package includes safety preparedness and emergency response readiness. Without these measures, it is very likely in the long term risks will not be managed to a standard that provides New Zealanders with the social assurance required i.e. the risks of a major accident will rise.

Groups considered to be important include:

- the mine workers who are important beneficiaries since the MRS training and emergency response is designed to protect them and control the risks they face
- the MRS who will be required to extend its services and continue to deliver a consistent best practice service across New Zealand
- the Mines Rescue Trust (MRT) Board, made up of levy payers and a worker representative, who oversee MRS activities and influence the levy setting process
- the mine operators/duty holders will shoulder longer term compliance costs to ensure mine emergency preparedness that will also assist in controlling safety risks
- the regulator will also face some costs in the short term from developing and implementing health and safety regulation and organising and participating in a review in five years
- the mine union will face some on-going costs liaising with the MRS and ensuring worker participation in emergency preparedness
- the general public will also be given social assurance that health and safety risks are controlled to best practice standards.

7. Conclusions and recommendations

Option 4 implements best practice emergency preparedness and emergency response training at least cost. It contributes to a mutually reinforcing package of health and safety measures that will strengthen the management of high hazards in the mining and tunnelling sector over the long term. Importantly, it more accurately matches levy payment with potential use of the MRS.

It sets out a proportionate response to emergency preparedness and emergency response, specifying in detail what the MRS is required to do to contribute to controlling the health and safety risks. This option is preferable to the status quo and is consistent with international best practice.

8. Implementation

Change management

Cabinet has directed the Ministry to develop the Pike River Implementation Plan (the Plan). The role of the Plan is to develop a response to the recommendations of the Royal Commission on the Pike River Coal Mining Tragedy. Cabinet has also decided that the focus of the regulations should be broader than just underground coal mines. For the MRS this means:

- reorganising their funding arrangements to ensure they fully cost recover

- extending their operations to cover underground metalliferous and coal mines, open cast coal mines, and some tunnels.

Information

The overall objective of the Plan is to make immediate changes to New Zealand's mining regulations where possible and to start an active and immediate engagement with the Australian jurisdictions with a view to developing a more harmonised trans-Tasman mining regime. The Australian mining industry is seen as best practice.

For the MRS this requires:

- further engagement with the sector designing emergency preparedness plans etc.
- a more coordinated and proportionate approach to emergency response.

Implementation focus

New regulations

The focus of new regulations is on two areas:

- new funding formulas making cost-setting more responsive to industry changes, allocating the levy based on the need for the service aligned to the MRS's statutory functions and the risks involved for different classes of mines
- increased coverage so that a more consistent approach to mines rescue is extended across underground metalliferous mines, coal mines and some tunnels.

Increased MRS involvement in industry emergency preparedness

Increased MRS involvement in emergency preparedness is being implemented through changes in the new mining regulations and the new mining regulatory framework as a whole, i.e. the development of auditable systems that provide better health and safety information, the creation of new health and safety roles with mines, and an advisory body to oversee monitoring, verification and review processes.

Self-regulating mechanism

The MRS levy regulatory mechanism is intended to operate alongside the mechanisms in the new Mines Rescue Act to create a MRS that is for industry and run by industry. The levy-setting mechanism is intended to be self-regulating over time. There are mechanisms in the new Act and in the charitable trust structures to ensure that best practice is maintained. The Act requires consultation with levy payers before annual estimated costs are set, and that levy payers are notified of expected costs and receive annual financial statements. The MRS board is made up of levy payers and a worker representative.

Government assurance is achieved through having a representative of WorkSafe New Zealand's High Hazards Unit in a non-voting role on the MRS board, and WorkSafe also receives MRS's annual financial statements.

9. Monitoring, evaluation and review

While the MRS levy mechanism is intended to be a self-regulating system, a review may be needed in five years to ensure that it is working effectively.

Appendix 1 – Table comparing annual levy for mine operators under all options based on \$1.5 million total MRS costs (split evenly between emergency preparedness and emergency response readiness) and using industry risk weightings

Mine	Mine workers	Risk weightings	Mine workers (risk adjusted)	Levy paid 2012-13 \$	Discussion paper	Industry Proposal			MBIE Proposal		
					Discussion paper TOTAL Levy \$	EP levy \$	ER levy \$	TOTAL LEVY \$	EP levy \$	ER levy \$	TOTAL LEVY \$
Underground coal mines											
East Mine Huntly	72	1	72	147,390	254,387	34,884	122,951	157,835	24,752	127,193	151,945
Terrace Mine	8	1	8	1,220	28,265	17,442	61,475	78,917	24,752	14,133	38,885
Roa	28	1	28	13,630	98,928	17,442	61,475	78,917	24,752	49,464	74,216
Underground metalliferous mines											
Trio	160	0.35	56		197,857	34,884	43,033	77,917	24,752	98,928	123,680
Fraser	160	0.35	56		197,857	34,884	43,033	77,917	24,752	98,928	123,680
Broken Hills	2	0.35	0.7		2,473	17,442	21,516	38,958	8,251	1,237	9,488
Lawson's Flat	2	0.35	0.7		2,473	17,442	21,516	38,958	8,251	1,237	9,488
Underground coal mines - suspended											
Pike River (C&M)	1	0.3	0.3	-	1,060	17,442	18,443	35,884	24,752	530	25,282
Spring Creek (C&M)	10	0.3	3	14,110	10,599	17,442	18,443	35,884	24,752	5,300	30,052
Opencast coal mines - with u/g workings											
O'Reillys	7	0.25	1.75	2,490	6,183	17,442	15,369	32,811	24,752	3,092	27,844
Awaroa/Rotowaro	125	0.25	31.25	65,630	110,411	34,884	30,738	65,621	24,752	55,206	79,958
Puke Coal	10	0.25	2.5	14,350	8,833	17,442	15,369	32,811	24,752	4,416	29,168
Boatmans	3	0.25	0.75	-	2,650	17,442	15,369	32,811	8,251	1,325	9,576
Burkes Creek	3	0.25	0.75	1,800	2,650	17,442	15,369	32,811	8,251	1,325	9,576
Echo	22	0.25	5.5	23,870	19,432	17,442	15,369	32,811	24,752	9,716	34,468
Stockton	230	0.25	57.5	153,700	203,156	17,442	30,738	48,179	12,376	101,578	113,954
Cascade Coal	5	0.25	1.25	4,260	4,416	17,442	15,369	32,811	8,251	2,208	10,459
Tunnels											
TBM tunnel 1	10	0.2	2		7,066	17,442	12,295	29,737	24,752	3,533	28,285
TBM tunnel 2	10	0.2	2		7,066	17,442	12,295	29,737	24,752	3,533	28,285
TBM tunnel 3	10	0.2	2		7,066	17,442	12,295	29,737	24,752	3,533	28,285
TBM tunnel 4	10	0.2	2		7,066	17,442	12,295	29,737	24,752	3,533	28,285
TBM tunnel 5	10	0.2	2		7,066	17,442	12,295	29,737	24,752	3,533	28,285
TBM tunnel 6	100	0.2	20		70,663	34,884	24,590	59,474	24,752	35,332	60,084
Opencast coal mines - no u/g workings											
Kopako	21	0.1	2.1	14,300	7,420	17,442	6,148	23,590	24,752	3,710	28,462
Giles Creek	35	0.1	3.5		12,366	17,442	6,148	23,590	24,752	6,183	30,935
Cascade Coal	17	0.1	1.7	2,980	6,006	17,442	6,148	23,590	24,752	3,003	27,755
Heaphys	10	0.1	1	1,530	3,533	17,442	6,148	23,590	24,752	1,767	26,519
Roa	3	0.1	0.3	4,110	1,060	17,442	6,148	23,590	8,251	530	8,781
Reddale	10	0.1	1	3,900	3,533	17,442	6,148	23,590	24,752	1,767	26,519
Stockton	455	0.1	45.5	105,800	160,758	17,442	12,295	29,737	12,376	80,379	92,755
Strongman	43	0.1	4.3	697	15,193	17,442	6,148	23,590	24,752	7,596	32,348
Newvale	37	0.1	3.7	-	13,073	17,442	6,148	23,590	24,752	6,536	31,288
Ohai (Rehabilitation)	8	0.1	0.8	-	2,827	17,442	6,148	23,590	24,752	1,413	26,165
Nightcaps (Takitimu mine)	37	0.1	3.7	-	13,073	17,857	6,148	24,005	24,752	6,536	31,288
Kai Point	3	0.1	0.3	-	1,060	17,442	6,148	23,590	8,251	530	8,781
Roxburgh Coal	1	0.1	0.1	-	353	17,442	6,148	23,590	8,251	177	8,428
Rocky Creek	1	0.1	0.1	-	353	17,442	6,148	23,590	8,251	177	8,428
Canterbury Coal	5	0.1	0.5	-	1,767	17,442	6,148	23,590	8,251	883	9,134
TOTAL	1747		424.55	675,787	1,500,000	750,414	750,006	1,500,421	750,814	750,000	1,500,814