



Mohan Yellishetty <mohan.yellishetty@monash.edu>

Monash University Submission Inquiry into the rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities

1 message

Committee, EC (SEN) <ec.sen@aph.gov.au>
To: "mohan.yellishetty@monash.edu" <mohan.yellishetty@monash.edu>
Cc: "Committee, EC (SEN)" <ec.sen@aph.gov.au>

1 September 2017 at 16:34



THE SENATE

SENATE ENVIRONMENT AND COMMUNICATIONS REFERENCES COMMITTEE

1 September 2017

By email: mohan.yellishetty@monash.edu

Dear Dr Yellishetty

Inquiry into the rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities

Thank you for your submission relating to the Committee's inquiry into the above matter. The Committee will consider carefully all matters raised in your submission.

The Committee has authorised the publication of the submission and you are now free to circulate it to other parties should you wish to do so. The Committee will also provide your submission to anyone on request and it will be published on the Committee's webpage as Submission Number 74.

In the case of organisations, the committee usually only redacts signatures and direct contact details before the submission is published. Submissions to this inquiry are published [here](#).

Your submission is protected by parliamentary privilege. Parliamentary privilege refers to the special rights and immunities attached to the Parliament or its members and others necessary for the discharge of the parliamentary functions without obstruction and fear of prosecution. This means that you cannot be prosecuted or disadvantaged because of anything that you have provided in evidence, or because you gave such evidence. If you believe that anyone has disadvantaged you in any way as a result of the submission you have made, please advise the secretariat.

Thank you for your participation in this inquiry. Should you have any concerns about the publication of your submission or require any further information concerning the committee's inquiry, please contact the committee secretariat on [02 6277 3585](tel:0262773585). The Committee is required to report by **18 October 2017**. A copy of the report will be loaded onto the Committee's website and may be accessed at www.aph.gov.au/senate_ec.

Yours sincerely

Dr Sean Turner | Committee Secretary

Additional Committee Support Unit

Committee Office | Department of the Senate

Phone [02 6277 3558](tel:0262773558)

www.aph.gov.au/senate





Dr Mohan Yellishetty PhD, MAusIMM (CP – Mining)
Senior Lecturer (Resources Engineering)

Committee Secretary

Senate Standing Committees on Environment and Communications
PO Box 6100
Parliament House
CANBERRA ACT 2600

24th August 2017

Re: Inquiry into the rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities

Dear Committee Secretary,

Monash University holds a substantial interest in the current and future rehabilitation of mining projects and would like to offer support to the inquiry. This submission is to address the committee on important issues that surround the rehabilitation of mining projects, highlight the need for a coordinated national research strategy between industry, government and research providers, and also to demonstrate Monash University's commitment towards providing solutions for these issues.

Monash University is one of the largest research providers in Australia and has extensive cross-disciplinary capacity to develop strategic mine closure and rehabilitation solutions. Monash University currently works in partnership with the Australian mining industry to address mine closure and rehabilitation challenges. A range of complex economic, social and environmental challenges are associated with the closure and rehabilitation of mining operations. Addressing these challenges requires multi-disciplinary research approaches to ensure that proposed solutions are technically sound, whilst meeting the needs of community, industry and government stakeholders. The research and training that is currently being conducted across Monash University's various faculties provides a deep expertise that can be harnessed to identify potential opportunities and solutions to mine closure and rehabilitation challenges. Our Faculty of Engineering conducts technical research in areas such as artificial soils, the stability of mine slopes, the migration of pollutants through groundwater systems, remediation of contaminated land, and the role of vegetation selection to manage erosion and runoff water quality. Monash University's Faculty of Law, Faculty of Arts and Faculty of Business and Economics also possess expertise in the social perceptions of mining, environmental policy, environmental management and also the taxation arrangements of extractive industries.

Monash's commitment to mine rehabilitation

Monash University is proposing the establishment of a Centre for Progressive Land Rehabilitation that will provide proactive and integrated approaches to the rehabilitation of degraded land. Mine rehabilitation requires coordination of expertise from a range of scientific areas (Figure 1) to achieve meaningful outcomes for all stakeholders. Through the development of this centre, Monash University will be positioned to provide world-leading research on mine site rehabilitation for the benefit of industry, communities, regulatory authorities, and state and federal Australian governments. The aim of this Center of Excellence is to develop a framework to facilitate successful



transition to closure while alleviating social, economic and environmental wellbeing of communities living in and around major mining centers in Victoria, Australia and the world.

The proposed Centre for Progressive Land Rehabilitation will bring together and coordinate the research efforts of Monash University's multi-disciplinary teams, as well as strategic collaborators and partner organisations. The centre will coordinate research efforts across multiple disciplines or research areas including: engineering, environmental health, ecology, cultural landscapes and aesthetics, economics, environmental policy and sustainable development.

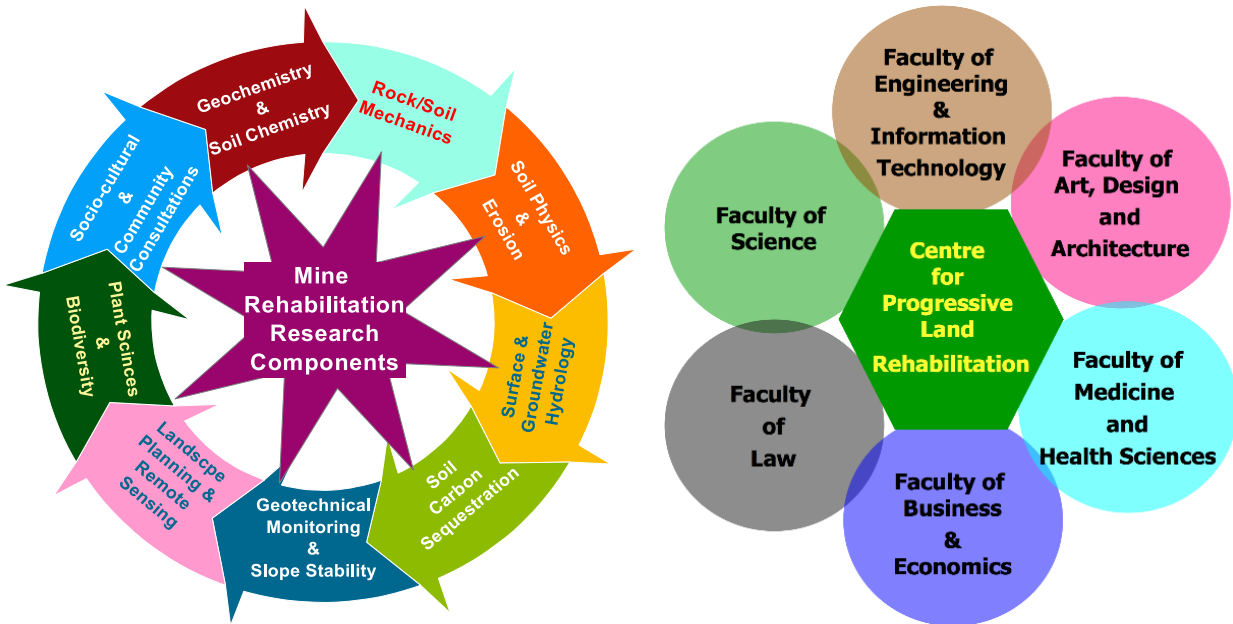


Figure 1: Scientific areas involved in mine rehabilitation (left) and Monash's diverse team (right)

Funding and Coordination of Mine Rehabilitation Research

In 2016, the Australian Research Council (ARC) only funded several research projects related to mine rehabilitation in areas such as the hydrogeology of mining operations, plant establishment on waste rock dumps and post-mining landscapes, and geosynthetic liners for reducing contaminant seepage risks. The Australian Coal Association Research Program (ACARP) has funded research programs to develop and evaluate mine rehabilitation strategies in the black coal industry. However, there are limited funding mechanisms available through other industry or research bodies to develop research tailored to address the technical, social, economic and environmental issues surrounding rehabilitation at Australian brown coal mines, quarry and sand mining operations, metalliferous mines, or abandoned and/or historical mines.

Given the contribution of the mining industry to the Australian economy, it is important that best-practice mine closure and rehabilitation outcomes be achieved to prevent adverse outcomes to the environment or local communities that are economically dependent upon mining activities. Ensuring progressive rehabilitation throughout the life of mining operations and an effective transition to post-mining landscapes are critical for Australia to be seen as a world leader in environmental stewardship and mineral resource governance. Due to this, Monash University would welcome the development of a Federal Government strategy for mine closure and rehabilitation research, to provide strategic guidance, targeted funding and to improve coordination between the Australian mining industry,



MONASH University

private and public research providers, and Federal and State government regulatory authorities. Such an initiative would lead to positive outcomes for the Australian mining industry and local communities.

Submission prepared by:

Alec Miller, Stephen Northey and Mohan Yellishetty on behalf of the Faculty of Engineering,
Monash University

Approved by:

Professor Jeff Walker, Dean, Faculty of Engineering

Professor J Kodikara, Head, Department of Civil Engineering

Yours Sincerely,

A handwritten signature in blue ink, appearing to read 'Mohan Yellishetty', with a horizontal line underneath.

Dr Mohan Yellishetty
Senior Lecturer (Mining)
Monash University



Mohan Yellishetty <mohan.yellishetty@monash.edu>

Monash University Submission Inquiry into the rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities

2 messages

Committee, EC (SEN) <ec.sen@aph.gov.au>
To: Mohan Yellishetty <mohan.yellishetty@monash.edu>
Cc: "Committee, EC (SEN)" <ec.sen@aph.gov.au>

24 August 2017 at 15:55



THE SENATE

SENATE ENVIRONMENT AND COMMUNICATIONS REFERENCES COMMITTEE

24 August 2017

By email: mohan.yellishetty@monash.edu

Dear Dr Mohan Yellishetty,

Inquiry into the rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities

Thank you for your submission relating to the Committee's inquiry into the above matter. The Committee will consider carefully the matters you have raised.

Receipt and publication of submissions

All submissions to Parliamentary inquiries become Committee documents upon receipt and are made public only after a decision by the Committee. You should not give your submission to others before the Committee makes it public. Submissions are protected by parliamentary privilege but their unauthorised release is not.

Once the Committee has agreed to publish your submission, it will be placed on the Senate's website. Your contact details and other identifying information will not be published. As with all documents published on websites, your submission will be available to other users and the contents searched for on the internet.

Requests for your name to be withheld or for confidentiality

You may request that the Committee give consideration to not publishing your name on the Senate's website or to receiving all or part of your submission as confidential, that is, available only to Committee members.

Any request for your name to be withheld, or for confidentiality, must be provided to the Committee Secretariat **within the next 4 working days**. In addition, reasons for a request for confidentiality are to be provided. You will notified once the Committee has made its decision regarding your request.

Contact details

If you have not already done so, please provide your contact details for the Committee's records.

Further information

If you have any questions regarding your submission or the inquiry, please contact the Committee Secretariat on [02 6277 3585](tel:0262773585) or by email at ec.sen@aph.gov.au.

Information on making a submission is also available on the Senate's website at: http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Making_a_submission

Yours sincerely

Dr Sean Turner

Secretary

PO Box 6100, Parliament House, Canberra ACT 2600 | Tel: (02) 6277 3585 | Fax: (02) 6277 5794

Email: ec.sen@aph.gov.au | Internet: www.aph.gov.au/senate_ec

From: Mohan Yellishetty [mailto:mohan.yellishetty@monash.edu]

Sent: Thursday, 24 August 2017 3:27 PM

To: Committee, EC (SEN)

Cc: Ward, Carla (SEN); Stephen Northey; Alec Miller

Subject: Re: Rehabilitation of mining and resources projects - Public Hearing

Dear CJ and Carla,

Hope you are doing well.

I am sorry that it took a bit of time to get back on this, I was busy teaching and finalizing grant applications. Herewith, I have attached the copy of written submission on behalf of Monash University. Please let me know if you need additional info.

Thanks once again for your kind consideration to accept the submission.

Kind regards,

Mohan

Dr Mohan Yellishetty MAusIMM CP (Min)

Senior Lecturer, [Resources Engineering](#)

Department of Civil Engineering, Monash University

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Editorial:

[International Journal of Mining Science and Technology](#)

[International Journal of Mining, Reclamation and Environment \(Special Issue\)](#)

[International Journal of Quality Assurance in Engineering and Technology Education](#)

[Open Journal of Energy Efficiency](#)

Conferences:

[Technical Chair, IETEC'17, Hanoi, Vietnam](#)

[International Chair, MPES 2017, Sweden](#)

[SWEMP 2017](#)

Mohan Yellishetty - Mining.bmp

On 18 July 2017 at 16:45, Committee, EC (SEN) <ec.sen@aph.gov.au> wrote:

Good afternoon Mohan,

Thank you for your email. The committee does not have any further public hearings locked in at this stage, however it may schedule additional public hearings later in the year.

While the formal closing date for written submissions has passed, the committee would still be happy to accept a late submission to the inquiry if you wish to lodge one addressing the inquiry's terms of reference (which can be found on the committee website [here](#)). The Australian Parliament House website also has some general guidance on making a submission at this link: http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Making_a_submission.

Feel free to contact me if you have any further questions.

Kind regards

CJ Sautelle | Principal Research Officer

Senate Committee Office | Department of the Senate

Phone [02 6277 3584](tel:0262773584) | Fax [02 6277 5794](tel:0262775794)

www.aph.gov.au/senate

From: Mohan Yellishetty [mailto:mohan.yellishetty@monash.edu]
Sent: Sunday, 16 July 2017 6:59 PM
To: Committee, EC (SEN)
Cc: Ben Vivekanandan
Subject: Rehabilitation of mining and resources projects - Public Hearing

To

The Committee Secretary

Senate Standing Committees on Environment and Communications

Dear Sir or Madam,

Warm Greetings!

I'm pleased that Federal Government has constituted a Senate Standing Committee to look into the aspects of Mine Rehabilitation across different states and territories of Australia. I'm writing in connection with the recent Senate Standing Committee's Public Hearings in Brisbane and just was wondering if there are any such forum being planned in Melbourne.

I'm a mining engineer with 2 decades of experience with deep research interests spanning Mine Rehabilitation and Industrial Ecology. Since joining Monash in 2011, I have been undertaking quite advanced research into this very important issue that concerns all the States of Australia. I have been supervising 3 PhDs, 3 Research fellows and nearly 10 undergraduate students working on various projects around mine rehabilitation.

Of late, I have tasked 4 undergraduate students with preparing an exhaustive database of all the current and abandoned mines in 4 different states of Australia, i.e., Victoria, Tasmania, NSW (Coal) and South Australia. Students have done fantastic job towards creating this much needed and comprehensive database in their first semester and the work will further build on the foundation in the second semester (a sample poster prepared by one of the students is attached herewith).

I was also putting together a dedicated CENTRE FOR PROGRESSIVE LAND REHABILITATION that will bring in expertise from various faculties within Monash and other Universities and research organisation. The same is currently undergoing an approval process within Monash University. Should this centre be approved, Monash will be able assist and work with State and Federal Governments to alleviate the issues around Mine Rehabilitation, both current and historical.

I'll be quite please hear if there is any Public Hearing being held in Melbourne so that we could attend or prepare a submission that will assist the governments in their efforts to streamline or legislate the same.

Look forward to hearing from you.

Sincerely,

Mohan

Dr Mohan Yellishetty MAusIMM CP (Min)

Senior Lecturer, Resources Engineering

Department of Civil Engineering, Monash University

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Web [Google Scholar](#)

Editorial:

International Journal of Mining Science and Technology

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Open Journal of Energy Efficiency

Conferences:

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International Chair, MPES 2017, Sweden

SWEMP 2017

Mohan Yellishetty - Mining.bmp

Mohan Yellishetty <mohan.yellishetty@monash.edu>

24 August 2017 at 16:00

To: Stephen Northey <stephen.northey@monash.edu>, Alec Miller <ajmil13@student.monash.edu>

FYI please.

Mohan

[Quoted text hidden]