

From: [Tan, John](#)
To: [Sam Ponniah](#)
Cc: 9(2)(a)
Subject: Databook
Date: Thursday, 27 May 2021 10:23:30 pm
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[Three Waters Economic Impact Assessment Databook.xlsm](#)

Sam

Attached is the file of source data for the charts that you requested

John

John Tan

Partner | Corporate Finance

Deloitte

Level 12, 20 Customhouse Quay, PO Box 1990, Wellington 6140, New Zealand

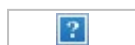
D: 9(2)(a) | M: 9(2)(a) | O: 9(2)(a) | F: 9(2)(a)

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From: [Tan, John](#)
To: [Sam Ponniah](#)
Cc: [Dent, Alan](#); 9(2)(a)
Subject: Final A3
Date: Sunday, 30 May 2021 10:59:45 pm
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[Final Economic Impact & Affected Industries A3.pdf](#)

Sam

Please find attached the final version of the A3 with the last set of comments incorporated. Can you please let us know the date that you plan to release the files + the link, so that we can coordinate listing the report on our website at the same time.

John

John Tan

Partner | Corporate Finance

Deloitte

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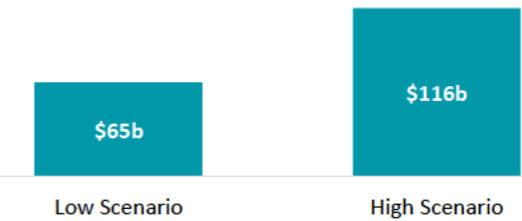
Why was Deloitte engaged?

Effective Three Waters services are essential to the wellbeing of all New Zealanders. However, New Zealand's Three Waters system is facing major challenges, and will continue to do so without transformational reform. The Government is proposing a package of reforms that would establish a **small number of asset-owning multi-regional water service entities**, operating with financial and operational autonomy, strengthened governance, improved access to capital markets, and under economic regulation. Deloitte Access Economics¹ has been engaged by the Department of Internal Affairs (DIA) to assess the potential **economic impact of the proposed reform package**, and to **develop an understanding of the opportunities and risks for industries affected by reform**.

How did we estimate the economic impacts of reform?

The economic impact assessment estimates the economic impact of a **material step up in investment in connection with reform** (the system transformation scenario), relative to the level of investment that might be expected in the absence of reform (the counterfactual scenario). As the counterfactual already includes a large increase in Council spending relative to the status quo, the economic impacts could be greater than the modelling suggests. We have used Computable General Equilibrium (CGE) modelling to estimate the potential economic impact of reform.²

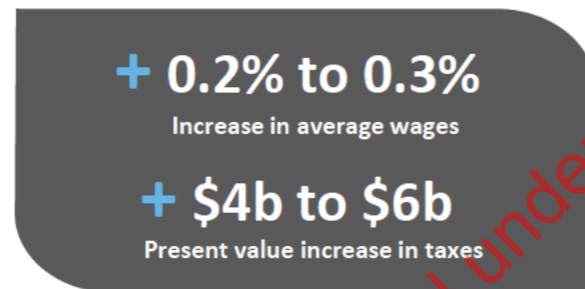
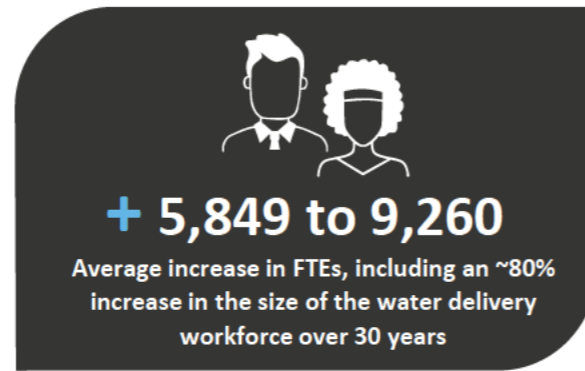
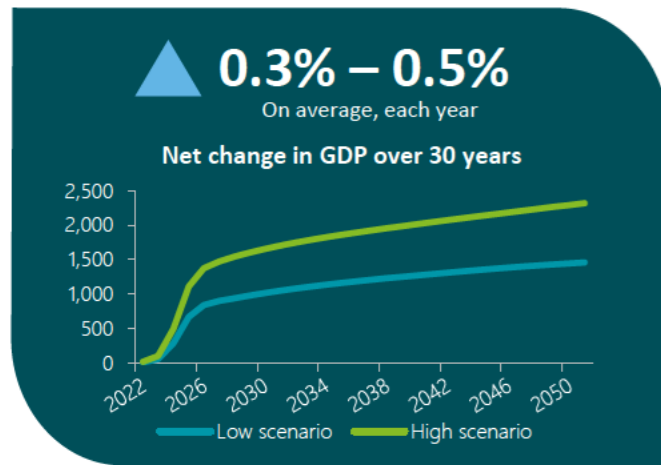
Key model input: Incremental capital expenditure (\$ billions)



¹All graphs and tables should be sourced as Deloitte Access Economics (2021)

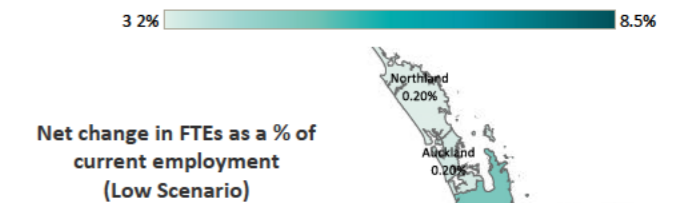
National impacts of reform

Reform enables a substantial increase in GDP, employment, wages and tax revenue, **delivering benefits across all corners of the economy**. This reflects the fundamental role that water infrastructure and services plays in the economy, and the critical role reforming the system for delivering water services can play in the NZ economy.



Regional impacts of reform

Reform will have a positive impact on all regions. However, **not all regions are impacted equally**, as shown on the heat maps below. Metropolitan regions experience substantial economic benefits in absolute terms, reflecting their large scale and the current distribution of economic activity in the country. Rural and provincial areas experience significant economic benefits relative to current levels of activity, likely a result of the local nature of much of the investment that will be required.



³ Under the High Scenario, the NZ average is 7.1%.

⁴ Under the High Scenario, the NZ average is 0.41%.

Industry impacts of reform

Greatest impact relative to the counterfactual by industry, 2022-2051 - Low Scenario

Industry	Increase in GDP (\$ billions)	Average increase in FTEs
Other Services	5.1	2,934
Business Services	2.5	1,207
Trade	1.5	856
Financial Services	0.7	329
Construction	0.8	422

Reform will have a **significant positive impact** on all industries, particularly those that are more capital and water intensive. The water sector, like other horizontal sectors of the economy, cuts across a range of industries, including construction, engineering and manufacturing. This increase in activity associated with reform is initially driven by activity in the water delivery sector, and subsequently there are positive flow-on impacts to sectors across NZ.

Isolating the impacts of reform on the water sector is complex, as it involves many different parts of the economy. The present value of the water delivery sector's GDP is expected to increase by \$0.3 billion. Over time the composition of the workforce is expected to change, particularly over the transition period. However, the water delivery workforce is projected to **grow by 80% over the 30 year period modelled**, from ~9,250 today to ~16,650 employees in 2051.

Opportunities and challenges of reform for affected industries

Industry development study	The industry development study aimed to validate the economic impact analysis through targeted stakeholder interviews, and international and local case studies. Interviewees included Taumata Arowai, engineering and consulting businesses, and contracting firms.
Scaling up the supply chain	Reform could enhance the visibility and scale of the investment pipeline, enabling NZ participants to scale up operations. However, there is a risk of smaller operators being squeezed out, thereby reducing supply chain diversity. Work is already underway to ensure the transition phase supports scaling up and retains diversity in the supply chain.
Workforce skills, capacity and diversity	Reform provides an opportunity to address challenges the water sector is currently facing, including the current workforce shortage, both in terms of capacity and skills, and limited awareness of career opportunities. Work is underway to address these issues and ensure the sector can deliver on the large infrastructure investment.
Access to capital	Access to capital and funding certainty are critical to achieving gains in the sector. Many of the contracting and consulting firms interviewed did not foresee capital constraints as an issue in scaling up in response to reform, provided there is pipeline certainty and workforce issues are addressed.
Innovation and productivity	Reform could lead to significant productivity and innovation gains, as the industry's structure shifts and parallel developments such as an improved regulatory regime play out. For example, procurement practices may shift to consider whole-of-life value, rather than heavily focusing on price and risk transfer.

² Our CGE model represents demand and supply relationships in the economy, providing a clear way to trace how a material step-up in investment in the Three Waters sector impacts key variables like GDP.

From: [Tan, John](#)
To: [Sam Ponniah](#)
Cc: 9(2)(a)
Subject: RE:Databook
Date: Monday, 31 May 2021 1:20:05 pm
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)

Sam

That's fine. Thanks for checking

Can you also please confirm that DIA are happy for us to publish the report and a3 on our website when you also release it

John

Sent from my iPhone

On 31/05/2021, at 11:50 AM, Sam Ponniah
<9(2)(a)@martinjenkins.co.nz> wrote:

Hi John

We need to share the regional results from the workbook with EY as they are helping with preparing some material for local authority consumption – essentially we are preparing information to help local authorities understand the potential impacts of reform (e.g. stranded overheads, transfer of debt), of which the economic impacts are a subset. Given EY aren't a signatory to DIA's CSO with Deloitte (but come under a separate CSO with relevant confidentiality obligations), I just wanted to check you're comfortable with us sharing the file or that part of it at least with EY.

Cheers

Sam

Sam Ponniah | Senior Consultant

MartinJenkins

M 9(2)(a) T 9(2)(a)

From: Tan, John 9(2)(a)@deloitte.co.nz>

Sent: Thursday, 27 May 2021 10:22 PM

To: Sam Ponniah 9(2)(a)@martinjenkins.co.nz>

Cc: 9(2)(a)@deloitte.co.nz>; 9(2)(a)

9(2)(a)@deloitte.co.nz>

Subject: Databook

Sam

Attached is the file of source data for the charts that you requested

John

John Tan

Partner | Corporate Finance

Deloitte

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From: [Tan, John](#)
To: [Sam Ponniah](#); 9(2)(a) [x@xx](#)
Cc: 9(2)(a) [Liza](#); [Nick Davis](#)
Subject: RE:NBR Enquiry
Date: Monday, 28 June 2021 9:19:27 am
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)

Hi Sam / Simon

Do you have any further thoughts on if/how you wish to engage with the NBR

John

From: Tan, John

Sent: Wednesday, 23 June 2021 11:43 AM

To: 'Sam Ponniah' 9(2)(a) [@martinjenkins.co.nz](#); 9(2)(a) [@deloitte.co.nz](#);
9(2)(a) [@dia.govt.nz](#); 9(2)(a) [@dia.govt.nz](#)>

Cc: 9(2)(a) [@deloitte.co.nz](#); Nick Davis
9(2)(a) [@dia.govt.nz](#)>

Subject: RE: NBR Enquiry

Hi Sam / Simon

The note from 9(2)(a) below is all that we have on what NBR have proposed. 9(2)(a) tried to enquire further, but 9(2)(a) did not provide any further detail

John

From: Sam Ponniah <9(2)(a) [@martinjenkins.co.nz](#)>

Sent: Wednesday, 23 June 2021 11:34 AM

To: Tan, John 9(2)(a) [@deloitte.co.nz](#); 9(2)(a) [@deloitte.co.nz](#)>

Cc: 9(2)(a) [@deloitte.co.nz](#); Nick Davis
9(2)(a) [@dia.govt.nz](#)>

Subject: [EXT] RE: NBR Enquiry

Hi all

John, if you can forward 9(2)(a) enquiry to Simon Cunliffe (9(2)(a) [@dia.govt.nz](#)) in the first instance as he is the comms lead at DIA. I've let him know this is coming.

We can then decide how we engage

Cheers

Sam

Sam Ponniah Senior Consultant

MartinJenkins

M 9(2)(a) T 9(2)(a)

From: Tan, John 9(2)(a) [@deloitte.co.nz](#)>

Sent: Wednesday, 23 June 2021 11:28 AM

To: 9(2)(a) [@deloitte.co.nz](#); Sam Ponniah 9(2)(a) [@martinjenkins.co.nz](#)>

Cc: 9(2)(a) [@deloitte.co.nz](#); Nick Davis
9(2)(a) [@dia.govt.nz](#)>

Subject: RE:NBR Enquiry

Thanks 9(2)(a)

Sam – We have made 9(2)(a) aware of the media protocols that we have agreed and will await your input on how/whether DIA would prefer to engage on this

John

From: 9(2)(a) [@deloitte.co.nz](#)>

Sent: Wednesday, 23 June 2021 11:14 AM

To: Sam Ponniah ^{9(2)(a)} [@martinjenkins.co.nz](mailto:9(2)(a)@martinjenkins.co.nz); Tan, John ^{9(2)(a)} [@deloitte.co.nz](mailto:9(2)(a)@deloitte.co.nz)>

Cc: ^{9(2)(a)} [@deloitte.co.nz](mailto:9(2)(a)@deloitte.co.nz); Nick Davis ^{9(2)(a)} [@dia.govt.nz](mailto:9(2)(a)@dia.govt.nz)>

Subject: RE: NBR Enquiry

Hi all,

I have spoken with ^{9(2)(a)} who is the co-editor of the NBR and is the journalist looking to write the article.

He wishes to have more of a technical discussion about the report (rather than the report in a broader context) and talk to the underlying analysis which led to the assumptions being reported.

Kind regards,

^{9(2)(a)}

From: Sam Ponniah ^{9(2)(a)} [@martinjenkins.co.nz](mailto:9(2)(a)@martinjenkins.co.nz)>

Sent: Wednesday, 23 June 2021 10:25 am

To: Tan, John ^{9(2)(a)} [@deloitte.co.nz](mailto:9(2)(a)@deloitte.co.nz)>

Cc: ^{9(2)(a)} [@deloitte.co.nz](mailto:9(2)(a)@deloitte.co.nz); ^{9(2)(a)} [@deloitte.co.nz](mailto:9(2)(a)@deloitte.co.nz); Nick Davis ^{9(2)(a)} [@dia.govt.nz](mailto:9(2)(a)@dia.govt.nz)>

Subject: [EXT] RE: NBR Enquiry

Thanks for the heads up John. Do forward us the enquiry once you receive further detail so we can determine the best course of action.

Cheers

Sam

Sam Ponniah | Senior Consultant

MartinJenkins

M ^{9(2)(a)} T ^{9(2)(a)}

From: Tan, John ^{9(2)(a)} [@deloitte.co.nz](mailto:9(2)(a)@deloitte.co.nz)>

Sent: Wednesday, 23 June 2021 10:19 AM

To: Sam Ponniah ^{9(2)(a)} [@martinjenkins.co.nz](mailto:9(2)(a)@martinjenkins.co.nz)>

Cc: ^{9(2)(a)} [@deloitte.co.nz](mailto:9(2)(a)@deloitte.co.nz); ^{9(2)(a)} [@deloitte.co.nz](mailto:9(2)(a)@deloitte.co.nz)>

Subject: NBR Enquiry

Hi Sam

^{9(2)(a)} from our Comms team received an enquiry from ^{9(2)(a)}, co-editor at the NBR, on the 3W work. I have asked our team to find out a bit more about what they wish to discuss, noting that we agreed to pre-clear any media enquiries with DIA before we agreed to comment further. I will forward the nature of the enquiry when I know more, but this is a heads up

Regards

John

John Tan

Partner | Corporate Finance

Deloitte

Level 12, 20 Customhouse Quay, PO Box 1990, Wellington 6140, New Zealand

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