From: [redacted] <[redacted]>
Sent: Wednesday, 17 August 2022 10:29 AM
To: [redacted] <[redacted]>
Cc: [redacted] <[redacted]>
Subject: RE: Question concerning the Draft NSW Groundwater Strategy

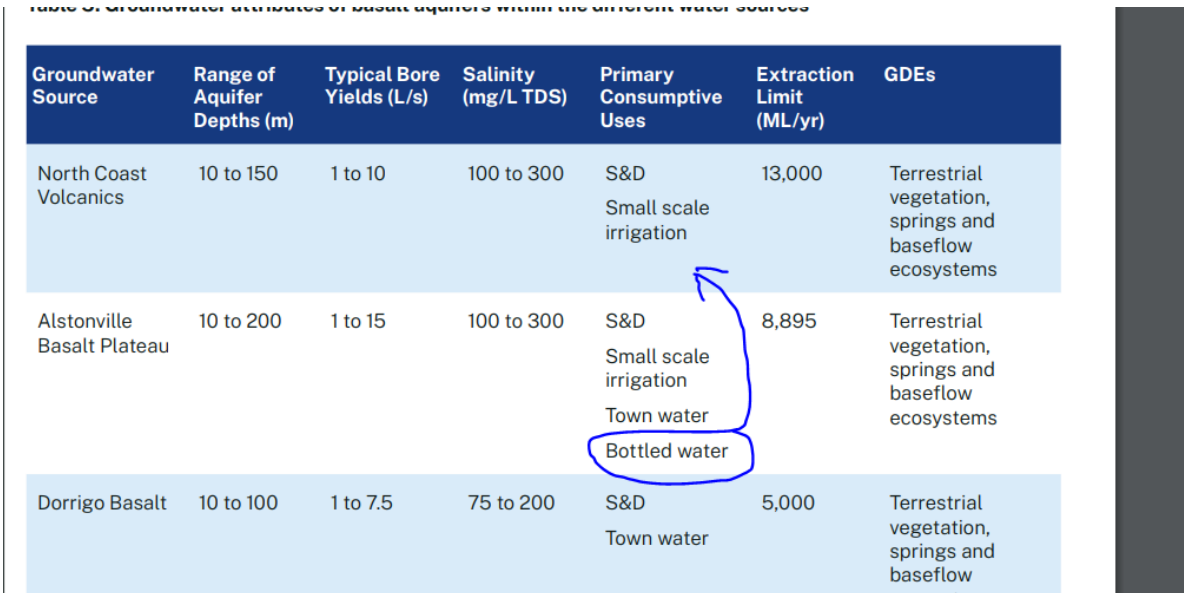
Hi [redacted]

[redacted]

RCC would be interested in seeing the advice from CSIRO into the likely effects of climate change on the overall recharge rates for groundwater resources, if that can be made publicly available - especially, if this advice is somewhat relevant to the Northern Rivers. RCC, in an abundance of conservatism, have adopted the same reduction used for surface sources due to a lack of research in this area. Based on your comments in the presentation, this may need to be reviewed by RCC

I have noted some very minor comments in the supporting document, as detailed below.
Page 114 - Draft Guide to Groundwater Resources in NSW

Current there is no groundwater extraction for bottled water in the Alstonville Basalt Plateau, this is only occurring thin the Tweed Shire local government area. I note the proposed licence was not acted upon.



Groundwater Source	Range of Aquifer Depths (m)	Typical Bore Yields (L/s)	Salinity (mg/L TDS)	Primary Consumptive Uses	Extraction Limit (ML/yr)	GDEs
North Coast Volcanics	10 to 150	1 to 10	100 to 300	S&D Small scale irrigation	13,000	Terrestrial vegetation, springs and baseflow ecosystems
Alstonville Basalt Plateau	10 to 200	1 to 15	100 to 300	S&D Small scale irrigation Town water Bottled water	8,895	Terrestrial vegetation, springs and baseflow ecosystems
Dorrigo Basalt	10 to 100	1 to 7.5	75 to 200	S&D Town water	5,000	Terrestrial vegetation, springs and baseflow

Page 116 - Draft Guide to Groundwater Resources in NSW

Entitlements are not showing BLR entitlements in this table .

My concerns as technically, based on NSW Policy position, the Alstonville Basalt Aquifer should be considered an “at risk source”, as entitlements (inclusive of BLR) are greater then the extraction limit (LTAAEL), however, this has not been carried through into the NSW non-urban metering policy. Advice to date is that this can be reviewed, but there has been no change made to the NSW non-urban metering policy as yet.

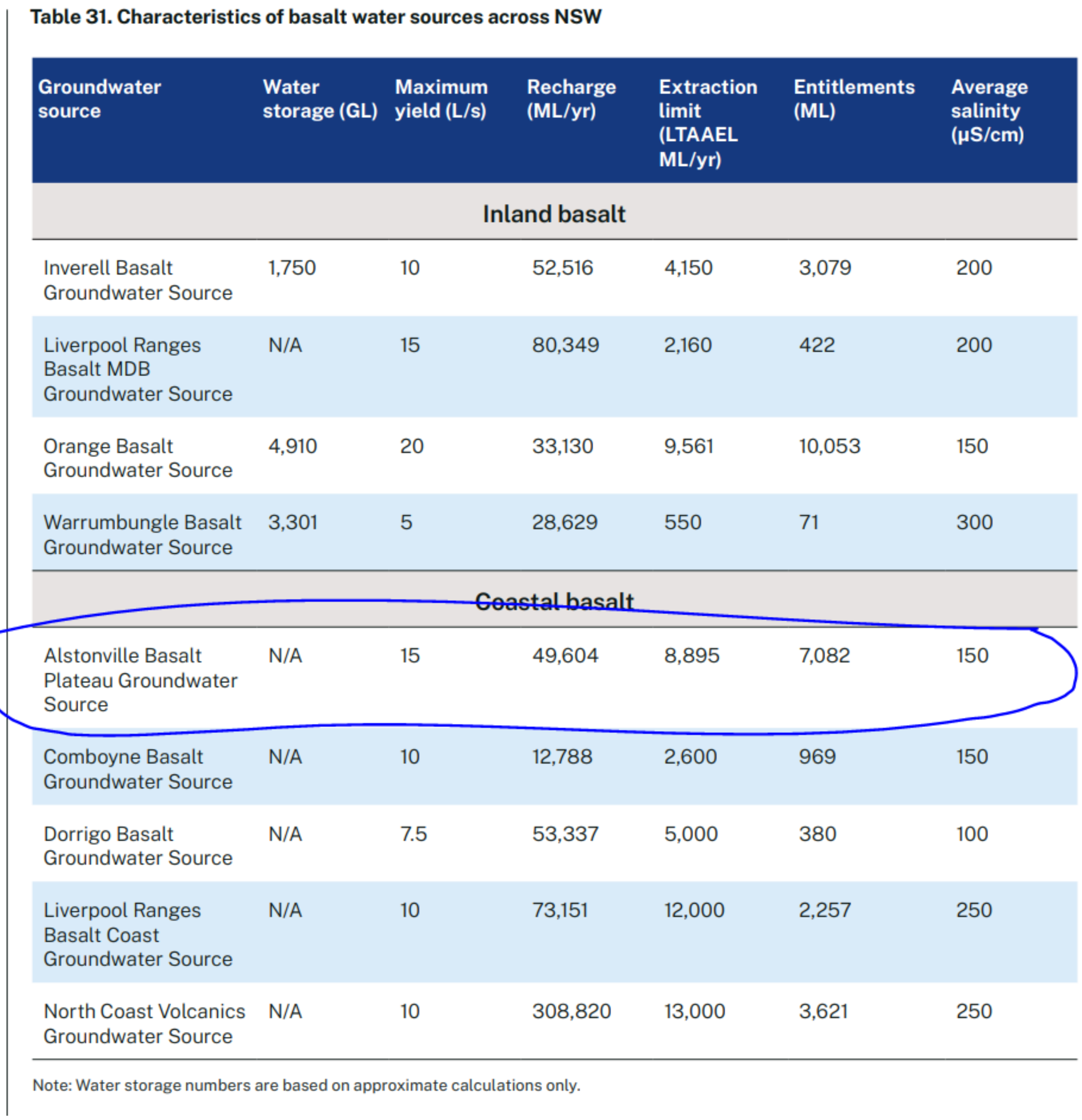


Table 31. Characteristics of basalt water sources across NSW

Groundwater source	Water storage (GL)	Maximum yield (L/s)	Recharge (ML/yr)	Extraction limit (LTAAEL ML/yr)	Entitlements (ML)	Average salinity (µS/cm)
Inland basalt						
Inverell Basalt Groundwater Source	1,750	10	52,516	4,150	3,079	200
Liverpool Ranges Basalt MDB Groundwater Source	N/A	15	80,349	2,160	422	200
Orange Basalt Groundwater Source	4,910	20	33,130	9,561	10,053	150
Warrumbungle Basalt Groundwater Source	3,301	5	28,629	550	71	300
Coastal basalt						
Alstonville Basalt Plateau Groundwater Source	N/A	15	49,604	8,895	7,082	150
Comboyne Basalt Groundwater Source	N/A	10	12,788	2,600	969	150
Dorrigo Basalt Groundwater Source	N/A	7.5	53,337	5,000	380	100
Liverpool Ranges Basalt Coast Groundwater Source	N/A	10	73,151	12,000	2,257	250
North Coast Volcanics Groundwater Source	N/A	10	308,820	13,000	3,621	250

Note: Water storage numbers are based on approximate calculations only.

CSE report

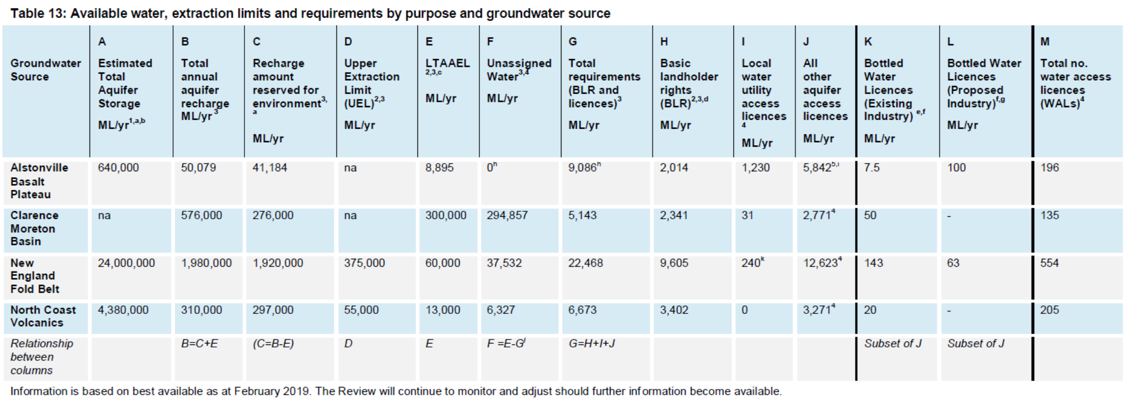


Table 13: Available water, extraction limits and requirements by purpose and groundwater source

Groundwater Source	A Estimated Total Aquifer Storage ML/yr[1,a,b]	B Total annual aquifer recharge ML/yr[3]	C Recharge amount reserved for environment[3,a] ML/yr	D Upper Extraction Limit (UEL)[2,3] ML/yr	E LTAAEL[2,3,c] ML/yr	F Unassigned Water[3,4] ML/yr	G Total requirements (BLR and licences)[3] ML/yr	H Basic landholder rights (BLR)[2,3,d] ML/yr	I Local water utility access licences[4] ML/yr	J All other aquifer access licences ML/yr	K Bottled Water Licences (Existing Industry)[e,f] ML/yr	L Bottled Water Licences (Proposed Industry)[f,g] ML/yr	M Total no. water access licences (WALs)[4]
Alstonville Basalt Plateau	640,000	50,079	41,184	na	8,895	0[h]	9,086[h]	2,014	1,230	5,842[b,i]	7.5	100	196
Clarence Moreton Basin	na	576,000	276,000	na	300,000	294,857	5,143	2,341	31	2,771[4]	50	-	135
New England Fold Belt	24,000,000	1,980,000	1,920,000	375,000	60,000	37,532	22,468	9,605	240[k]	12,623[4]	143	63	554
North Coast Volcanics	4,380,000	310,000	297,000	55,000	13,000	6,327	6,673	3,402	0	3,271[4]	20	-	205
Relationship between columns		*B=C+E*	*(C=B-E)*	*D*	*E*	*F =E-G[j]*	*G=H+I+J*				*Subset of J*	*Subset of J*	

Information is based on best available as at February 2019. The Review will continue to monitor and adjust should further information become available.

Regards

[redacted]

Rous County Council

[redacted]