From: Lauren McDonald

To: <u>"Felippe Rodrigues"</u>

Subject: RE: Official Information Request for GIS files on sea-level impacts on coastal communities

Date: Friday, 14 February 2020 12:07:00 p.m.

Attachments: <u>~WRD000.jpg</u>

Climate Survey Template LIDAR FINAL 21 June 2018.pdf

Dear Mr Rodrigues

In response to your official information request for GIS data on sea level rise impact on coastal communities. Please find attached the data Council and provided to LGNZ and also the link to the GIS files for the sea level rise scenarios.

https://filetransfer.dcc.govt.nz/link/mTmVjuJGJfskl7psxsZMB0

I hope that this answers your information request.

Yours sincerely

Lauren McDonald

Governance Support Officer CORPORATE SERVICES GROUP

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New Zealand
www.dunedin.govt.nz

From: Felippe Rodrigues <felippe.d@stuff.co.nz>

Sent: Friday, 20 December 2019 3:11 p.m.

To: Felippe Rodrigues <fsorodrigues@gmail.com>

Subject: Request for GIS files

Dear Mr or Ms,

Stuff is reporting on the implications of sea-level rise on coastal communities. We are particularly keen looking at the geographic data used by the council while collaborating with LGNZ on the <u>Vulnerable</u> report from Jan 2019.

We'd like to request access to the following files.

- GIS data of sea-level rise scenarios (0.5-3m) used by the council
- GIS data or any other format used by the council to analyse the impact of sea-level rise on local infrastructure (three waters, buildings/facilities, transport, landfills, green spaces, as defined by the Vulnerable report)
- Tabular data provided to LGNZ with the results of analysis

We ask that the council provide them in their original format or, when not possible, equivalent machine-readable formats.

For GIS data, the following formats are preferred: ESRI Shapefile, geojson, kml. For tabular data, the following formats are preferred: xlsx, xls, csv, tsv, odf, xml, json.

All the best and happy holidays,

--

Felippe Rodrigues

Data reporter

E felippe.d@stuff.co.nz | M 022 062 3447

Level 7, Spark Central, 42-52 Willis Street, Wellington, 6011, New Zealand PO Box 3740, Wellington, 6140



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Summary Data

Council Name:	Dunedin City Council
Contact Name:	Tom Dyer
Contact E-mail:	tom.dyer@dcc.govt.nz
Contact Number:	03 474 3873
Date of Completion:	20-Jun-18

Comments:	

1. Three Waters

Asset Type	Unit	Council TOTAL**	Replacement Value	Depreciated Value	
Wastewater					
Treatment Plants	No.	7	\$ 152,648,619.07	\$ 90,202,972.37	
Pump Stations	No.	81	\$ 20,159,013.44	\$ 6,012,083.85	
Manholes	No.	12608	\$ 56,780,462.84	\$ 23,240,537.72	
Pipes	km	909732	\$ 634,884,716.69	\$ 286,478,532.74	
Stormwater					
Manholes	No.	6967	\$ 30,157,272.89	\$ 13,066,131.09	
Pipes	km	377898	\$ 402,026,079.49	\$ 139,110,385.80	
Water Supply (Potable)					
Treatment Plants	No.	11	\$ 58,326,225.11	\$ 30,953,677.71	
Water supply wells / bores	No.	11	\$ 1,585,530.58	\$ 372,779.83	
Pump Stations	No.	23	\$ 4,649,016.89	\$ 1,230,204.26	
Pipes	km	1384000	\$ 591,960,025	\$ 232,944,075	
Reservoirs	No.	4	\$ 17,331,614.90	\$ 10,961,103.72	
Irrigation / Flood control					
Pumps / pump stations	No.				

^{*}Please provide a list of all assets/facilities that are impacted

Site Name Water Site Type Level GRC

^{**} Total quantum and value for all assets owned by Council. This will enable estimations of percentages

Waikouaiti Treatment Plant	Wastewater	Treatment Plant	1.5m SLR	\$ 1,795,792.50
Tahuna Treatment Plant	Wastewater	Treatment Plant	3.0m SLR	\$ 115,534,823.30
Broad Bay #8	Wastewater	Pumpstation	0.5m SLR	\$ 118,975.89
Broad Bay #9	Wastewater	Pumpstation	0.5m SLR	\$ 117,802.04
East Harbour #4 (Company Bay)	Wastewater	Pumpstation	0.5m SLR	\$ 207,807.41
Brighton #10	Wastewater	Pumpstation	1.0m SLR	\$ 190,725.72
City #7 (Marne Street)	Wastewater	Pumpstation	1.0m SLR	\$ 124,801.29
Musselburgh Pump Station	Wastewater	Pumpstation	1.0m SLR	\$ 6,860,726.26
Port Chalmers #3 (Careys Bay)	Wastewater	Pumpstation	1.0m SLR	\$ 112,024.58
Karitane #2 (Stornaway Street)	Wastewater	Pumpstation	1.0m SLR	\$ 165,273.69
Karitane #3 (Foreshore)	Wastewater	Pumpstation	1.0m SLR	\$ 163,392.69
Broad Bay #1	Wastewater	Pumpstation	1.5m SLR	\$ 175,095.94
Broad Bay #2	Wastewater	Pumpstation	1.5m SLR	\$ 101,858.34
Broad Bay #4	Wastewater	Pumpstation	1.5m SLR	\$ 152,687.13
Broad Bay #5	Wastewater	Pumpstation	1.5m SLR	\$ 127,564.69
Broad Bay #6	Wastewater	Pumpstation	1.5m SLR	\$ 109,185.76
Brighton #2 (Camp Ground)	Wastewater	Pumpstation	1.5m SLR	\$ 134,565.24
Broad Bay #7	Wastewater	Pumpstation	1.5m SLR	\$ 20,663.90
Karitane #1 (North Entrance)	Wastewater	Pumpstation	1.5m SLR	\$ 166,540.80
Cove #1	Wastewater	Pumpstation	1.5m SLR	\$ 35,625.24
Cove #2	Wastewater	Pumpstation	1.5m SLR	\$ 35,625.24
East Harbour #3 (Macandrew Bay Foreshore)	Wastewater	Pumpstation	1.5m SLR	\$ 203,512.73
Oval Pavilion	Wastewater	Pumpstation	1.5m SLR	\$ 3,083.33
Port Chalmers #6 (Deborah Bay)	Wastewater	Pumpstation	1.5m SLR	\$ 109,081.97
West Harbour #4 (Sawyers Bay)	Wastewater	Pumpstation	1.5m SLR	\$ 359,600.76
Broad Bay #10	Wastewater	Pumpstation	3.0m SLR	\$ 86,712.94
Brighton #8	Wastewater	Pumpstation	3.0m SLR	\$ 159,708.99
Brighton #3	Wastewater	Pumpstation	3.0m SLR	\$ 129,854.78
City #3 (Ravensbourne)	Wastewater	Pumpstation	3.0m SLR	\$ 141,262.80
East Harbour #1 (Vauxhall)	Wastewater	Pumpstation	3.0m SLR	\$ 240,930.73
East Harbour #2 (Challis Point)	Wastewater	Pumpstation	3.0m SLR	\$ 193,205.25
Green Island #8A (Canberra Place)	Wastewater	Pumpstation	3.0m SLR	\$ 159,708.99
Parry Street	Wastewater	Pumpstation	3.0m SLR	\$ 221,118.44

Macandrew Bay #5 (422 Portobello Drive)	Wastewater	Pumpstation	3.0m SLR	\$ 121,685.20
Port Chalmers #1 (Mussel Bay)	Wastewater	Pumpstation	3.0m SLR	\$ 168,401.99
Port Chalmers #2 (Mount Street)	Wastewater	Pumpstation	3.0m SLR	\$ 137,457.72
Port Chalmers #4 (Back Beach)	Wastewater	Pumpstation	3.0m SLR	\$ 132,772.37
Waikouaiti #1 (Henry Street)	Wastewater	Pumpstation	3.0m SLR	\$ 165,092.72
Waikouaiti #2 (Stewart Street)	Wastewater	Pumpstation	3.0m SLR	\$ 140,189.98
Wingatui #1 (Walton Park)	Wastewater	Pumpstation	3.0m SLR	\$ 160,882.10
West Harbour #1 (Burkes Transfer)	Wastewater	Pumpstation	3.0m SLR	\$ 756,417.07
West Harbour #3	Wastewater	Pumpstation	3.0m SLR	\$ 89,928.91
Warrington #1 (Warrington Reserve)	Wastewater	Pumpstation	3.0m SLR	\$ 109,569.68

Council AFFECTED*	Total - 0.5m SLR	Replacement Value	Depreciated Value	Total - 1.0m SLR	Replacement Value	Depreciated Value
2	0			0		
41	3	\$ 444,585.33	\$ 193,495.05	9	\$ 8,061,529.56	\$ 1,794,163.93
1723	581	\$ 2,836,381.21	\$ 395,876.14	761	\$ 3,722,211.98	\$ 639,235.37
181.32	69.82	\$ 92,338,909.51	\$ 39,402,356.10	98.39	\$ 117,025,686.80	\$ 51,259,837.77
1646	838	\$ 3,461,258.22	\$ 951,747.54	995	\$ 4,143,910.10	\$ 1,201,419.91
99.1	52.28	\$ 72,420,028.61	\$ 16,026,861.97	62.62	\$ 89,759,064.04	\$ 21,090,114.32
0	0			0		
0	0			0		
0	0			0		
314.28	177.76	\$ 28,143,208.81	\$ 9,626,993.89	205.91	\$ 37,916,025.02	\$ 13,844,386.20
0	0			0		

_	
\$	957,130.36
\$	72,867,758.65
\$	55,785.19
\$	60,234.74
\$	77,475.12
\$	94,443.72
\$	47,069.57
\$	1,376,185.45
\$	14,497.63
\$	30,200.74
\$	38,271.77
\$	39,992.05
\$	34,455.92
\$	60,041.00
\$	28,367.10
\$	24,937.20
\$	19,487.14
\$	8,424.76
\$	28,989.24
\$	3,540.89
\$	3,540.89
\$	85,792.37
\$	38.92
\$	38,083.53
\$	131,561.15
\$	18,262.10
\$	26,981.64
\$ \$	22,804.47
\$	12,512.25
\$	100,072.28
\$ \$	84,896.72
\$	26,981.64
\$	18,227.57

\$ 47,673.43
\$ 32,978.67
\$ 12,437.98
\$ 17,153.11
\$ 15,613.85
\$ 44,032.73
\$ 30,261.29
\$ 323,284.51
\$ 11,116.73
\$ 18,714.47

Total - 1.5m SLR	Replacement Valu	e D	Depreciated Value	Total - 3.0m SLR	R	eplacement Value	D	epreciated Value	Details*
1	\$ 1,795,792.	50 \$	957,130.36	2	\$	117,330,615.80	\$	73,824,889.01	*
23	\$ 9,796,220.0	52 \$	2,301,416.09	41	\$	13,111,121.28	\$	3,165,421.53	
1060	\$ 5,122,360.4	12 \$	1,159,884.61	1723	\$	8,376,727.31	\$	2,459,115.87	
133.66	\$ 146,046,007.	45 \$	63,328,225.82	181.32	\$	189,096,578.63	\$	81,005,837.37	Please use 'intersect'
1201	\$ 5,025,259.2	26 \$	1,511,200.80	1646	\$	7,076,768.03	\$	2,140,020.86	
78.21	\$ 118,678,611.	46 \$	28,637,520.84	99.1	\$	158,814,382.87	\$	36,310,842.88	Please use 'intersect'
0				0					*
0				0					
0				0					
250.46	\$ 53,799,669.)3 \$	20,556,983.15	314.28	\$	72,253,037.68	\$	28,970,965.50	Please use 'intersect'
0				0					*



Comments / assumptions
Musselburgh Pump Station included in here
Raw Water Reservoirs only

2. Transport

Asset Type	Unit	Council TOTAL**	Replacement Value	Depreciated Value
Routes				
Roads - Sealed	km	1071	\$676,478,693	\$449,131,139
Roads - Unsealed	km	695	\$199,591,401	\$195,201,632
Bridges	No.	241	\$108,065,988	\$53,298,260
Facilities - Land				
Bus Terminals	No.			
Airports	No.			
Facilities - Marine				
Ports	No.			
Marinas	No.			
Jetties/Wharfs	No.			
Boat Ramps	No.			

^{*}Please provide a list of all facilities that are impacted

Note - valuations for large assets such as airports, ports, marinas are not required as it is recognised these will need further and mo

^{**} Total quantum and value for all assets owned by Council

Total - 0.5m SLR	Replacement Value	Depreciated Value	Total - 1.0m SLR	Replacement Value	Depreciated Value	Total - 1.5m SLR
79.8	\$50,404,294.77	\$33,464,673.10	105.54	\$66,662,522.18	\$44,258,917.28	141.67
18.79	\$5,396,147.37	\$5,277,465.71	29.81	\$8,560,891.60	\$8,372,605.25	38.42
10	\$4,837,054.00	\$2,945,699.00	11	\$5,839,544	\$3,952,099	17
	Not required	Not required		Not required	Not required	
	Not required	Not required		Not required	Not required	
	Not required	Not required		Not required	Not required	

re detailed studies to estimate impact.

Replacement Value	Depreciated Value	Total - 3.0m SLR	Replacement Value	Depreciated Value	Details*
\$89,483,414	\$59,410,278.67	198.11	\$125,132,767	\$83,078,777	Please use 'clip'
\$11,033,528	\$10,790,858.56	54.19	\$15,562,386	\$15,220,110	Please use 'clip'
\$7,713,761	\$4,765,928	34	\$38,149,245	\$21,022,195	
					*
Not required	Not required		Not required	Not required	*
Not required	Not required		Not required	Not required	*
Not required	Not required		Not required	Not required	*

Comments / assumptions

Data is valued as off 30 June 2017. As per notes 2 (column Z) this data does not include other asset types including sea walls, lights, footpaths and drainage assets. In total \$535,096,023 worth of DCC Transport assets are not included.

Include bridges if the approach roadways are exposed

Assume any intersection is accounted for as 'impacted'
Assume any intersection is accounted for as 'impacted'

Sealed pavement surface Sealed pavement layers Road formation Unsealed pavement layers Road formation

Bridges and bridge culverts

3. Buildings and Facilities

Asset Type	Unit	Council TOTAL**	Replacement Value	Depreciated Value	Total - 0.5m SLR	Replacement Value	Depreciated Value	Total - 1.0m SLR
Council Offices	No.	1	\$13,995,562.75					
Community Facilities (eg pools, libraries, community centres, halls, sporting facility buildings, toilet blocks)	No.	190	\$256,721,300.00		15	\$7,487,400.00		28
Council Housing	No.	931	\$78,260,500.00		306	\$23,153,000.00		356
Playgrounds	No.	108	\$7,034,198.14	\$3,321,525.64	5	\$565,226.29	\$295,614.30	12
Significant other buildings	No.							

^{*}Please provide a list of all facilities that are impacted

^{**} Total quantum and value for all assets owned by Council

Replacement Value	Depreciated Value	Total - 1.5m SLR	Replacement Value	Depreciated Value	Total - 3.0m SLR	Replacement Value	Depreciated Value	Details*	Comments / assumptions
								*	
\$12,561,800.00		38	\$45,146,000.00		50	\$62,169,100.00		*	
\$27,183,000.00		356	\$27,183,000.00		398	\$29,823,000.00			Replacement value based on rateable value
\$1,189,702.56	\$655,233.60	16	\$1,720,397.01	\$928,248.84	21	\$2,225,446.31	\$1,160,051.42		This is the value of the play equipment and softfall only
					1	11855000		*only impacted other s	significant buildings included - r

Notes
Assume any intersection is accounted for as 'impacted'
Assume any intersection is accounted for as 'impacted'
Assume any intersection is accounted for as 'impacted'
not total. Total value for this category could not be calculated in the time available

4. Greenspace (land only)

Asset Type	Unit	Council TOTAL**	Replacement Value	Depreciated Value	Total - 0.5m SLR
Production Land - Forestry	Area	0			0
Production Land - Agriculture	Area	0			0
Parks / Reserves	Area	568.01 ha	166,951,512.80		35.17 ha
Sportsfields	Area	79.92 ha	23,485,592.16		8.923 ha
Cemeteries	Area	0.080 ha	19,047.52		0

^{**} Total quantum and value for all land owned by Council

Replacement Value	Depreciated Value	Total - 1.0m SLR	Replacement Value	Depreciated Value	Total - 1.5m SLR	Replacement Value
		0			0	
		0			0	
4,583,984.90		96.87 ha	8,573,806.21		153.04 ha	59,747,410.91
1,163,004.70		12.21 ha	1,080,293.79		23.73 ha	9,261,987.46
		0			0.004 ha	1,380.33

Macandrew Bay Cemetery

Depreciated Value	Total - 3.0m SLR	Replacement Value	Depreciated Value	Details	Comments / assumptions
	0			Please use 'clip'	
	0			Please use 'clip'	
	318.10 ha	63,607,842.72		Please use 'clip'	Totals are taken from the land parcel valuations only. We do not depreciate land values.
	43.98 ha	8,790,974.62		Please use 'clip'	Totals are taken from the land parcel valuations only. We do not depreciate land values.
	0.076 ha	15,206.79		Please use 'clip'	Totals are taken from the land parcel valuations only. We do not depreciate land values.

Macandrew Bay Cemetery Green Park Cemetery Greytown Cemetery

5. Landfills

Asset Type	Unit	Council TOTAL**	Replacement Value	Depreciated Value	Total - 0.5m SLR
Active Landfills	No.	1	\$20,000,000		1
Closed Landfills	No.	16	\$0		8
Transfer station	No.	1	\$3,000,000	\$1,000,000	1

^{*}Please provide a list of all landfills that are impacted

Active = Green Island

^{**} Total quantum and value for all assets owned by Council

Replacement Value	Depreciated Value	Total - 1.0m SLR	Replacement Value	Depreciated Value	Total - 1.5m SLR	Replacement Value
\$20,000,000		1	\$20,000,000		1	\$20,000,000
\$0		10	\$0		11	\$0
\$3,000,000	\$1,000,000	1	\$3,000,000	\$1,000,000	1	\$3,000,000

Depreciated Value	Total - 3.0m SLR	Replacement Value	Depreciated Value	Details*	Comments / assumptions
	1	\$20,000,000		Green Island Landfill	Remaining landfill value is the va
	16	\$0		Council actively manag	Closed landfills have no value
\$1,000,000	1	\$3,000,000	\$1,000,000	Green Island Transfer S	Station

Notes

Assume any intersection is accounted for as 'impacted'
Assume any intersection is accounted for as 'impacted'
Assume any intersection is accounted for as 'impacted'