Version No: Issue Date: Portfolio:

01 05/09/2016

Horizons Regional Council

Section No: Page:

24.3 1 of 2



Hydrology Operations Manual



NIWA climate centre update

Overview:

HRC provides mean monthly flow statistics for 8 sites within the Manawatu catchment to NIWA as part of their climate centre updates. This process generally takes place within 2 working days of the start of the month, as specified by Kathy Walter from NIWA (by email).

Kathy Walter: Kathy. Walter@niwa.co.nz Subject: Climate Update

Updating Monthly Mean Flows:

The folder directory for this data request is:

\\ares\Environmental Data Requests\External\CRIs and Government\NIWA\NIWA Climate Center Update\

The data is copied from public telemetry into the CCD2008.hts file, appending to the existing file (select only copy new data) and amend water level to end at midnight of the end of the month to complete the analysis in Hydro.

Remove obvious erroneous data

	E		Ü	K	GS	GT	GU	GV	GW	GX	GY	GZ	HA	HB	HC	HD	HE	HF	HG	HH	
Climate Centre Dat	a		Current Month Aug-16		Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-1
Kahuterawa at Johnston's Rata	1980 - 06/12/2005		2012		Apr-15	1495	1814	2324	2012	1532	2153	2268	1476	1231	489	Mai-16 626	Apr-10 875	1495	1814	2324	20°
Site 1132519	Updated Jan 2010		2692	IV A LI	2335	2559	4062	1250	1997	2180	2598	1663	1886	818	330	351	396	2559	2463	2055	26
Site 1132319	Opualeu Jail 2010	134%	134%	NAII	267%	171%	224%	54%	99%	142%	121%	73%	128%	66%	67%	56%	45%	171%	136%	88%	134
Kumeti Stream at Te Rehunga	1981 - 18/03/2005	134 /0	451		259	319	503	622	451	463	459	343	349	230	217	223	259	319	503	622	4
Site 1032501	Updated Jan 2010		1055		829	418		721	461	905	521	500	240	235	97	233	197	660	793	888	10
Site 1032501	Opdated Jan 2010	234%	234%	KUM	320%		#VALUE!	116%	102%	195%	114%	146%	69%	102%	45%	104%	76%	207%	158%	143%	234
Manawatu River at Hopelands	1989 - 16/10/2005	254 /0	42528		19413	25070	37314	54517	42528	28345	29606	23115	18518	13594	15409	11741	19413	25070	37314	54517	425
Site 32504	Updated Jan 2010		56822	MUD	21556	18837	57859	31471	29053	61737	22202	18901	7166	7190	3362	8993	5837	23380	25576	47299	568
Site 32504	Opdated Jan 2010	134%	134%	MULE	111%	75%	155%	58%	68%	218%	75%	82%	39%	53%	22%	77%	30%	93%	69%	87%	134
Manawatu River at Palmerston North	1925 - 15/10/2005	134 /0	151789		73167	92364	141840	188427	151789	131828	151137	103053	82413	51685	67034	62695	73167	92364	141840	188427	1517
Sites 32502, 32580, 1032560	Updated Jan 2010		181031	TCO	96913	105039	264475	133206	130767	174321	106256	66696	36851	33041	15369	34460	22655	122204	106398	173921	1810
Onco 52502, 52500, 1052500	Opudica Juli 2010	119%	119%	100	132%	114%	186%	71%	86%	132%	70%	65%	45%	64%	23%	55%	31%	132%	75%	92%	119
Mangahao River at Ballance	1974 - 14/01/2005	11370	17267		9815	15258	17869	18426	17267	17886	20727	16395	14880	9870	9731	11003	9815	15258	17869	18426	172
Site 32526	Updated Jan 2010		16433	BΔI	20858	19518	34525	12191	19612	16729	30862	18614	12745	6213	2683	8445	6671	25545	17807	17972	
		95%	95%		213%	128%	193%	66%	114%	94%	149%	114%	86%	63%	28%	77%	68%	167%	100%	98%	95
Mangatainoka River at Pahiatua Town brid 1954 - 25/07/2005		26673		9380	13178	23207	31913	26673	13308	31114	19240	18254	8932	3002	6592	9380	13178	23207	31913	266	
Site 32531, 1132513	Updated Jan 2010		30090	PAH	15025	19587	45881	12854	22203	20889	26232	15897	8561	6702	1883	2567	2624	32104	20471	37417	300
		113%	113%		160%	149%	198%	40%	83%	157%	84%	83%	47%	75%	63%	39%	28%	244%	88%	117%	113
Tiraumea River at Ngaturi	1980 - 18/10/2004		27379		10409	13266	23520	33752	27379	20134	21321	11816	8998	5451	8899	6942	10409	13266	23520	33752	273
Site 32529	Updated Jan 2010		34138	NGA	5245	9978	36795	12910	23825	34524	16663	8920	4942	4607	2796	3092	2779	13557	10154	29100	341
		125%	125%		50%	75%	156%	38%	87%	171%	78%	75%	55%	85%	31%	45%	27%	102%	43%	86%	125
Tokomaru River at Riverland Farm	1980 - 06/12/2005		1380		1607	1727	1949	2001	1380	1357	2276	2349	2059	1598	1780	1641	1607	1727	1949	2001	13
Sites 1032517, 1032576,32511, 2232510 Updated Jan 2010			3527	TKM	1977	3414	5467	1744	2968	2891	3718	2468	2687	1288	553	553	567	3572	3519	3459	35
Sites 1032517, 1032576,32511, 223251																					

\\ares\Environmental Data Requests\External\CRIs and Government\NIWA\NIWA Climate Center Update\CLIMATE CENTRE DATA V2.XLS

Copy the previous year's month, i.e. Aug-15 to fill Aug-16 into the next relevant column across the spreadsheet (column G circled purple to column H circled yellow).

Run a PCAL in Hydro

Table \rightarrow Monthly Stas PCal \rightarrow Site and Measurement (Flow [Water Level]) \rightarrow Statistic: Mean \rightarrow Day begins at 00:00:00 Copy the data into the spreadsheet (pink squares)

The green squares indicate the long term average monthly flows which are adjusted periodically (5-10years). The percentages are calculated through equations in the spreadsheet.

Copy the current month column into the current month column J which should automatically update all the percentages.

Save the spreadsheet.

Version No: Issue Date: Portfolio:

01 05/09/2016

Horizons Regional Council

Section No: Page:

24.3 2 of 2



Hydrology Operations Manual

horizons

NIWA climate centre update

Complete a small request disclaimer form with your name, where the data came from (public telemetry), the date and check the file path is correct (note: \\ares\\\ should be removed from all file paths as this parent path is subject to change with the updating and re-formating of file storage within Catchment Data). Save the word document as a pdf to send with the excel spreadsheet.

Email the disclaimer and CLIMATE CENTRE DATA V2.XLS spreadsheet to Kathy Walters. Kathy will (most likely) reply that she has received the data.