



VOLUME 6 - APPENDIX  
SECTION 6.30 – IDF Tables  
Feasibility Study Final Report Phase I



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Stantec ■ DESFOR ■ SYSTRA

**IDF (TOTAL ACCUMULATION) DATA FOR CHAPAIS (STATION ID: 7091299)**

**Historical IDF (1964 to 2017)**

T (years)	2	5	10	20	25	50	100
5 min	7.11	9.54	11.14	12.68	13.16	14.67	16.16
10 min	10.08	13.55	15.85	18.05	18.75	20.9	23.04
15 min	12.19	16.14	18.75	21.26	22.05	24.5	26.93
30 min	15.72	20.39	23.49	26.46	27.41	30.31	33.19
1 h	19.56	25.62	29.64	33.49	34.71	38.47	42.2
2 h	22.67	28.95	33.11	37.09	38.36	42.25	46.12
6 h	30.96	39.12	44.51	49.69	51.33	56.39	61.41
12 h	36.8	46.27	52.54	58.56	60.47	66.34	72.18
24 h	45.17	57.28	65.3	72.99	75.43	82.94	90.4

**2050s CLIMATE (2041 TO 2070)**

Absolute projection value and percent change from historical conditions.

T (years)	2	5	10	20	25	50	100							
5 min	7.54	6.0%	10.15	6.4%	12.23	9.8%	14.77	16.5%	15.63	18.8%	18.66	27.2%	21.84	35.1%
10 min	10.72	6.3%	14.65	8.1%	17.72	11.8%	21.31	18.1%	22.51	20.1%	26.74	27.9%	30.83	33.8%
15 min	13.11	7.5%	17.78	10.2%	21.23	13.2%	25.18	18.4%	26.46	20.0%	30.9	26.1%	35.1	30.3%
30 min	17.35	10.4%	23.39	14.7%	27.4	16.6%	31.31	18.3%	32.54	18.7%	36.49	20.4%	39.99	20.5%
1 h	21.48	9.8%	29.23	14.1%	34.49	16.4%	39.74	18.7%	41.41	19.3%	46.82	21.7%	51.69	22.5%
2 h	25.26	11.4%	33.36	15.2%	38.53	16.4%	43.4	17.0%	44.9	17.0%	49.56	17.3%	53.68	16.4%
6 h	34.37	11.0%	44.78	14.5%	51.35	15.4%	58.09	16.9%	60.11	17.1%	66.5	17.9%	72.06	17.3%
12 h	40.63	10.4%	52.76	14.0%	60.37	14.9%	68.9	17.7%	71.4	18.1%	79.5	19.8%	86.52	19.9%
24 h	50.13	11.0%	65.57	14.5%	75.38	15.4%	85.33	16.9%	88.33	17.1%	97.85	18.0%	106.14	17.4%

## 2080s Climate (2071 to 2100)

Absolute projection value and percent change from historical conditions.

T (years)	2	5	10	20	25	50	100							
5 min	8.19	15.2%	10.94	14.7%	13.3	19.4%	15.97	25.9%	16.84	28.0%	19.83	35.2%	23.21	43.6%
10 min	11.66	15.7%	15.79	16.5%	19.16	20.9%	23.07	27.8%	24.31	29.7%	28.2	34.9%	32.52	41.1%
15 min	14.3	17.3%	19.1	18.3%	22.79	21.5%	27.1	27.5%	28.35	28.6%	31.98	30.5%	36.19	34.4%
30 min	19.21	22.2%	24.81	21.7%	28.69	22.1%	32.62	23.3%	33.75	23.1%	37.12	22.5%	40.68	22.6%
1 h	23.78	21.6%	31.02	21.1%	36.22	22.2%	41.39	23.6%	43.09	24.1%	47.82	24.3%	52.41	24.2%
2 h	28	23.5%	35.39	22.2%	40.27	21.6%	45.05	21.5%	46.34	20.8%	50.37	19.2%	54.59	18.4%
6 h	38.1	23.1%	47.52	21.5%	53.89	21.1%	60.38	21.5%	62.14	21.1%	67.63	19.9%	73.64	19.9%
12 h	45.02	22.3%	56	21.0%	63.79	21.4%	71.76	22.5%	74	22.4%	80.85	21.9%	88.26	22.3%
24 h	55.57	23.0%	69.57	21.5%	79.06	21.1%	88.71	21.5%	91.34	21.1%	99.48	19.9%	108.42	19.9%

## IDF (TOTAL ACCUMULATION) DATA FOR MATAGAMI A (STATION ID: 7094639)

### Historical IDF (1969 to 1990)

T (years)	2	5	10	20	25	50	100
5 min	7.49	10.04	11.72	13.34	13.34	13.85	15.43
10 min	10.8	14.47	16.9	19.23	19.23	19.97	22.25
15 min	12.89	17.67	20.84	23.88	23.88	24.84	27.81
30 min	15.62	20.97	24.51	27.91	27.91	28.99	32.31
1 h	19.36	26.07	30.52	34.79	34.79	36.14	40.31
2 h	23.23	32.5	38.64	44.52	44.52	46.39	52.14
6 h	31.95	43.04	50.38	57.42	57.42	59.65	66.53
12 h	36.28	47.59	55.08	62.26	62.26	64.53	71.55
24 h	41.52	53.56	61.53	69.18	69.18	71.6	79.08

### 2050s CLIMATE (2041 TO 2070)

Absolute projection value and percent change from historical conditions.

T (years)	2	5	10	20	25	50	100
5 min	8.12	8.4%	11.14	11.0%	13.29	13.4%	15.47
10 min	11.46	6.1%	15.46	6.8%	18.53	9.6%	21.92
15 min	13.6	5.5%	18.77	6.2%	22.69	8.9%	27.09
30 min	17.03	9.0%	23.31	11.2%	27.81	13.5%	32.23
1 h	20.92	8.1%	28.75	10.3%	34.32	12.5%	40.08
2 h	24.34	4.8%	34.24	5.4%	41.72	8.0%	50.38
6 h	34.16	6.9%	46.37	7.7%	55.39	9.9%	65.22
12 h	38.74	6.8%	51.36	7.9%	61.07	10.9%	71.35
24 h	44.55	7.3%	58.18	8.6%	68.66	11.6%	79.4

**2080s Climate (2071 to 2100)**

Absolute projection value and percent change from historical conditions.

T (years)	2	5	10	20	25	50	100							
5 min	8.47	13.1%	11.74	16.9%	14.35	22.4%	16.43	23.2%	17.02	22.9%	19.6	27.0%	22.24	30.8%
10 min	11.99	11.0%	16.27	12.4%	19.83	17.3%	23.78	23.7%	24.83	24.3%	28.46	27.9%	32.64	33.1%
15 min	14.23	10.4%	19.73	11.7%	24.4	17.1%	29.6	24.0%	31.03	24.9%	35.7	28.4%	41.23	34.1%
30 min	17.76	13.7%	24.61	17.4%	29.92	22.1%	34.08	22.1%	35.25	21.6%	40.49	25.3%	45.85	28.8%
1 h	21.84	12.8%	30.26	16.1%	37.14	21.7%	42.69	22.7%	44.27	22.5%	51.03	26.6%	57.99	30.5%
2 h	25.48	9.7%	35.97	10.7%	45.06	16.6%	55.4	24.4%	58.29	25.7%	67.8	30.0%	79.1	36.7%
6 h	35.72	11.8%	48.77	13.3%	59.68	18.5%	70.22	22.3%	73.12	22.6%	84.11	26.4%	96.01	30.9%
12 h	40.51	11.7%	54.11	13.7%	65.22	18.4%	77	23.7%	80.07	24.1%	91.59	28.0%	104.26	32.8%
24 h	46.58	12.2%	61.33	14.5%	73.21	19.0%	85.35	23.4%	88.46	23.5%	100.96	27.7%	114.18	32.0%

**IDF (TOTAL ACCUMULATION) DATA FOR MATAGAMI (GRIDDED: 49.77, -77.82)**

**Historical IDF (1969 to 1990)**

T (years)	2	5	10	20	25	50	100
5 min	7.37	10.04	11.9	13.8	14.37	16.3	18.29
10 min	10.39	13.86	16.57	19.62	20.59	24.07	28.01
15 min	12.31	16.77	20.3	24.3	25.57	30.18	35.44
30 min	15.43	20.95	24.73	28.53	29.64	33.39	37.21
1 h	18.96	25.8	30.65	35.67	37.18	42.34	47.75
2 h	22.13	30.82	37.82	45.83	48.4	57.74	68.5
6 h	30.89	41.5	49.57	58.37	61.13	70.82	81.48
12 h	35.11	46.11	54.56	63.87	66.81	77.2	88.77
24 h	40.4	52.35	61.37	71.16	74.22	84.94	96.72

**2050s Climate (2041 to 2070)**

Absolute projection value and percent change from historical conditions.

T (years)	2	5	10	20	25	50	100							
5 min	8.12	10.2%	11.15	11.1%	13.31	11.8%	15.68	13.6%	16.36	13.8%	19.06	16.9%	21.48	17.4%
10 min	11.46	10.3%	15.39	11.0%	18.54	11.9%	22.29	13.6%	23.44	13.8%	28.14	16.9%	32.88	17.4%
15 min	13.58	10.3%	18.63	11.1%	22.71	11.9%	27.6	13.6%	29.12	13.9%	35.29	16.9%	41.61	17.4%
30 min	17.01	10.2%	23.28	11.1%	27.67	11.9%	32.4	13.6%	33.75	13.9%	39.04	16.9%	43.68	17.4%
1 h	20.91	10.3%	28.66	11.1%	34.3	11.9%	40.52	13.6%	42.34	13.9%	49.52	17.0%	56.05	17.4%
2 h	24.41	10.3%	34.24	11.1%	42.32	11.9%	52.06	13.6%	55.12	13.9%	67.53	17.0%	80.42	17.4%
6 h	34.06	10.3%	46.1	11.1%	55.47	11.9%	66.3	13.6%	69.61	13.9%	82.82	16.9%	95.66	17.4%
12 h	38.72	10.3%	51.22	11.1%	61.05	11.9%	72.56	13.6%	76.08	13.9%	90.28	16.9%	104.21	17.4%
24 h	44.55	10.3%	58.16	11.1%	68.67	11.9%	80.83	13.6%	84.51	13.9%	99.33	16.9%	113.54	17.4%

**2080s Climate (2071 to 2100)**

Absolute projection value and percent change from historical conditions.

T (years)	2	5	10	20	25	50	100							
5 min	8.49	15.2%	11.75	17.0%	14.27	19.9%	16.42	19.0%	17.04	18.6%	19.46	19.4%	21.98	20.2%
10 min	11.97	15.2%	16.23	17.1%	19.87	19.9%	23.34	19.0%	24.41	18.6%	28.73	19.4%	33.66	20.2%
15 min	14.19	15.3%	19.63	17.1%	24.34	19.9%	28.91	19.0%	30.31	18.5%	36.03	19.4%	42.59	20.2%
30 min	17.78	15.2%	24.54	17.1%	29.65	19.9%	33.94	19.0%	35.13	18.5%	39.86	19.4%	44.7	20.1%
1 h	21.85	15.2%	30.21	17.1%	36.76	19.9%	42.44	19.0%	44.08	18.6%	50.55	19.4%	57.37	20.1%
2 h	25.5	15.2%	36.09	17.1%	45.35	19.9%	54.52	19.0%	57.38	18.6%	68.93	19.4%	82.31	20.2%
6 h	35.59	15.2%	48.6	17.1%	59.44	19.9%	69.44	19.0%	72.47	18.6%	84.54	19.4%	97.91	20.2%
12 h	40.46	15.2%	53.99	17.1%	65.42	19.9%	75.99	19.0%	79.2	18.5%	92.16	19.4%	106.66	20.2%
24 h	46.55	15.2%	61.3	17.1%	73.59	19.9%	84.66	19.0%	87.98	18.5%	101.4	19.4%	116.21	20.2%

**IDF (TOTAL ACCUMULATION) DATA FOR NEMASKA (GRIDDED: 51.68, -76.15)**

**Historical IDF (1969 to 1990)**

T (years)	2	5	10	20	25	50	100
5 min	5.81	8.65	10.64	12.67	13.28	15.33	17.44
10 min	7.64	11.24	13.93	16.83	17.73	20.86	24.27
15 min	9.28	13.61	17.15	21.27	22.6	27.5	33.24
30 min	12.29	18.05	22.67	28.03	29.73	36.1	43.61
1 h	15.77	22.54	27.66	33.15	34.88	40.78	47.03
2 h	20.47	27.76	32.85	38.04	39.59	44.77	50.05
6 h	28.77	38.48	45.37	52.49	54.63	61.95	69.6
12 h	35.34	45.87	52.79	59.62	61.54	68.12	74.79
24 h	42.08	54.03	61.5	68.64	70.55	77.07	83.46

**2050s Climate (2041 to 2070)**

Absolute projection value and percent change from historical conditions.

T (years)	2		5		10		20		25		50		100	
5 min	6.57	13.1%	9.71	12.3%	11.81	11.0%	14.17	11.8%	14.93	12.4%	17.59	14.7%	20.52	17.7%
10 min	8.64	13.1%	12.62	12.3%	15.47	11.1%	18.81	11.8%	19.93	12.4%	23.95	14.8%	28.55	17.6%
15 min	10.48	12.9%	15.28	12.3%	19.04	11.0%	23.78	11.8%	25.4	12.4%	31.56	14.8%	39.12	17.7%
30 min	13.89	13.0%	20.27	12.3%	25.16	11.0%	31.33	11.8%	33.42	12.4%	41.43	14.8%	51.32	17.7%
1 h	17.82	13.0%	25.32	12.3%	30.7	11.0%	37.05	11.8%	39.21	12.4%	46.8	14.8%	55.34	17.7%
2 h	23.13	13.0%	31.18	12.3%	36.47	11.0%	42.51	11.8%	44.5	12.4%	51.38	14.8%	58.9	17.7%
6 h	32.51	13.0%	43.22	12.3%	50.37	11.0%	58.67	11.8%	61.41	12.4%	71.09	14.8%	81.9	17.7%
12 h	39.93	13.0%	51.51	12.3%	58.6	11.0%	66.64	11.8%	69.18	12.4%	78.17	14.8%	88.01	17.7%
24 h	47.55	13.0%	60.68	12.3%	68.28	11.0%	76.72	11.8%	79.3	12.4%	88.44	14.8%	98.21	17.7%



**2080s Climate (2071 to 2100)**

Absolute projection value and percent change from historical conditions.

T (years)	2	5	10	20	25	50	100							
5 min	6.94	19.4%	10.68	23.5%	13.3	25.0%	16.05	26.7%	16.82	26.7%	19.6	27.9%	22.41	28.5%
10 min	9.13	19.5%	13.87	23.4%	17.4	24.9%	21.31	26.6%	22.46	26.7%	26.68	27.9%	31.19	28.5%
15 min	11.08	19.4%	16.8	23.4%	21.43	25.0%	26.95	26.7%	28.62	26.6%	35.16	27.9%	42.73	28.5%
30 min	14.69	19.5%	22.28	23.4%	28.32	24.9%	35.5	26.7%	37.65	26.6%	46.16	27.9%	56.05	28.5%
1 h	18.84	19.5%	27.83	23.5%	34.55	24.9%	41.99	26.7%	44.18	26.7%	52.14	27.9%	60.44	28.5%
2 h	24.46	19.5%	34.28	23.5%	41.05	25.0%	48.18	26.7%	50.14	26.6%	57.25	27.9%	64.33	28.5%
6 h	34.37	19.5%	47.51	23.5%	56.68	24.9%	66.49	26.7%	69.19	26.7%	79.21	27.9%	89.46	28.5%
12 h	42.22	19.5%	56.63	23.5%	65.95	24.9%	75.52	26.7%	77.94	26.6%	87.1	27.9%	96.12	28.5%
24 h	50.28	19.5%	66.71	23.5%	76.84	24.9%	86.95	26.7%	89.35	26.6%	98.54	27.9%	107.26	28.5%