

NOTES:

- 1) The system will have a different raw water source for winter from summer. As such the flows for these two streams are indicative of the summer or winter period only.
- 2) The flows for these streams will occur in the summer time only.
- 3) The flow values on this water balance have been derived from previous consultants documentation produced during the earlier phase of the project. Where values were missing Hatch estimations are used.
- 4) The peak flows for the accommodation facilities were determined using a peaking factor.
- 5) The division of trucked and piped facilities is based upon the proximity of the various facilities as indicated on layouts prepared by Hatch.

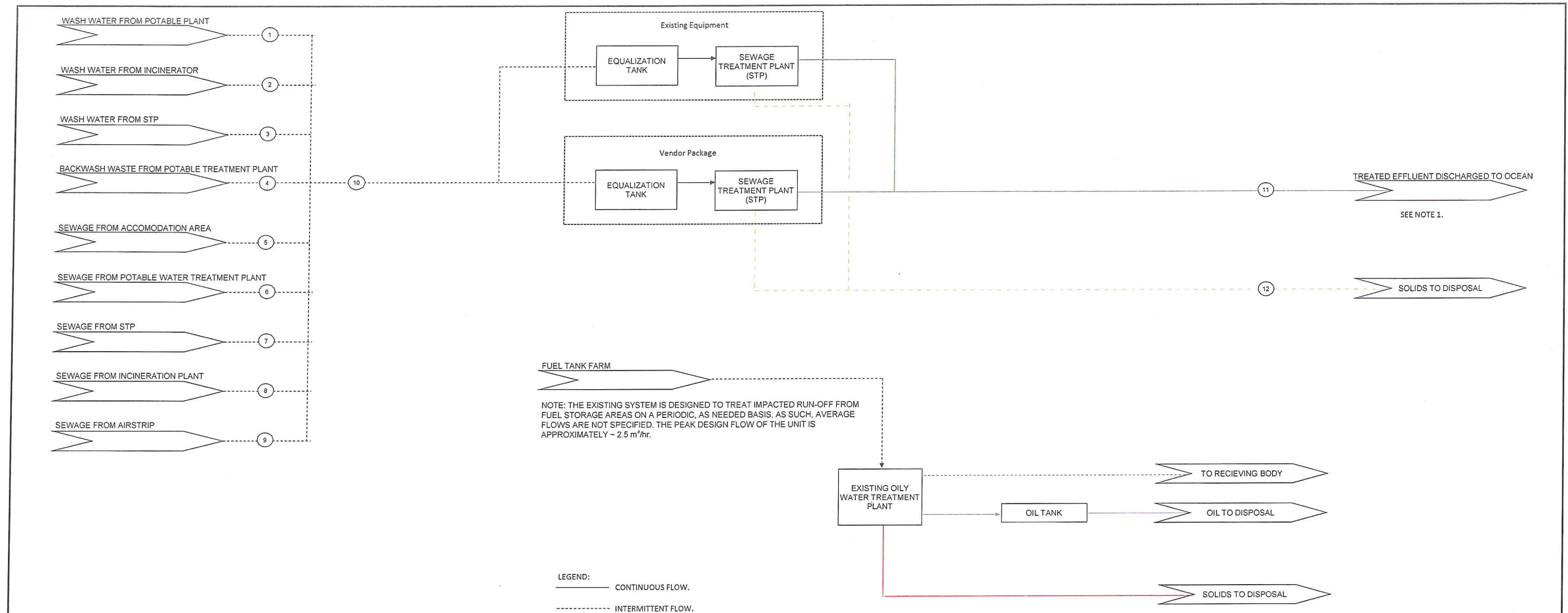
LEGEND:

- CONTINUOUS FLOW.
- INTERMITTENT FLOW.

Stream No.	1	2	3	4	5	6	7	8	9	
Stream Description	WINTER RAW WATER SUPPLY	SUMMER RAW WATER SUPPLY	FIREWATER	FEED TO POTABLE TREATMENT SYSTEM	PIPED FRESH WATER	TRUCKED FRESH WATER	POTABLE SYSTEM PRODUCT FLOW	POTABLE SYSTEM WASTE FLOW	PIPED POTABLE WATER	
Construction Phase - Design (m ³ /h)	2.8	2.8	300	2.2	10.2	42.9	2.2	0.0001	17.1	
Construction Phase - Nominal (m ³ /h)	2.8	2.8	-	2.2	0.4	0.2	2.2	0.0001	2.2	
Operation Phase - Design (m ³ /h)	1.2	1.2	300	0.6	10.2	42.9	0.6	0.00004	8.2	
Operation Phase - Nominal (m ³ /h)	1.2	1.2	-	0.6	0.4	0.2	0.6	0.00003	0.6	
Stream No.	10	11	12	13	14	15	16	17	18	19
Stream Description	WASH WATER TO STP	WASH WATER TO INCIN. PLANT	WASH WATER TO PWTP	FIRETRUCK WATER	POTABLE WATER TO AIRSTRIP	POTABLE WATER TO ACC. COMPLEX	POTABLE WATER TO STP	POTABLE WATER TO INCIN. PLANT	POTABLE WATER TO PWTP	FRESH WATER FOR ROAD DUST SUPPRESS.
Construction Phase - Design (m ³ /h)	3.4	3.4	3.4	42.86	0.0	17.02	0.02	0.01	0.02	42.9
Construction Phase - Nominal (m ³ /h)	0.1	0.1	0.1	0.00	0.0	2.11	0.02	0.01	0.02	0.2
Operation Phase - Design (m ³ /h)	3.4	3.4	3.4	42.86	0.0	8.22	0.005	0.003	0.01	42.9
Operation Phase - Nominal (m ³ /h)	0.1	0.1	0.1	0.00	0.0	0.56	0.005	0.003	0.01	0.2



HATCH		Baffinland	
DESIGNED BY R. KAPADIA Date: 8/23/2011	DRAWN BY R. KAPADIA Date: 8/23/2011	MILNE INLET - MARY RIVER PROJECT BLOCK FLOW DIAGRAM WATER SUPPLY BALANCE	
CHECKED BY A. ZLATIC Date: 8/23/2011 PROJ DES COORD	DISCIP ENGR A. ZLATIC Date: 8/23/2011 PROJ ENGR J. CASSON Date: 8/23/2011		
PROJECT MANAGER H. CHARALAMBU Date: 8/23/2011			
Drawing No. H337697-7000-10-002-0001 SHEET 1 OF 2		Rev. E	



NOTE: THE EXISTING SYSTEM IS DESIGNED TO TREAT IMPACTED RUN-OFF FROM FUEL STORAGE AREAS ON A PERIODIC, AS NEEDED BASIS. AS SUCH, AVERAGE FLOWS ARE NOT SPECIFIED. THE PEAK DESIGN FLOW OF THE UNIT IS APPROXIMATELY ~ 2.5 m³/hr.

NOTES:

- 1) Treated effluent shall meet discharge criteria based upon Nunavut Water Board licence requirements and the Canadian Guidelines for Domestic Reclaimed Water for Use in Toilet and Urinal Flushing.
- 2) The flow values on this water balance have been derived from previous consultants documentation produced during the earlier phase of the project. Where values were missing Hatch estimations are used.
- 3) The peak flows for the accommodation facilities were determined using a peaking factor.
- 4) The division of trucked and piped facilities is based upon the proximity of the various facilities as indicated on layouts prepared by Hatch.
- 5) It has been assumed that relative sewage flows will be distributed through different facilities in the same proportions as the relative potable water flows.
- 6) The Power Plant and Boiler plant will generate some oily water waste which will be treated in an existing plant treatment system and is therefore not accounted for on this waste water balance.

Stream No.	1	2	3	4	5	6
Stream Description	WASH WATER FROM POTABLE PLANT	WASH WATER FROM INCIN. PLANT	WASH WATER FROM STP	PWTP BACKWASH WASTE STREAM	SEWAGE FROM ACC. COMPLEX	SEWAGE FROM PWTP
Construction Phase - Design (m ³ /h)	3.4	3.4	3.4	0.0001	19.5	0.02
Construction Phase - Nominal (m ³ /h)	0.1	0.1	0.1	0.0001	1.8	0.02
Operation Phase - Design (m ³ /h)	3.4	3.4	3.4	0.00004	9.4	0.01
Operation Phase - Nominal (m ³ /h)	0.1	0.1	0.1	0.00003	0.1	0.01
Stream No.	7	8	9	10	11	12
Stream Description	SEWAGE FROM STP	SEWAGE FROM INCIN. PLANT	SEWAGE FROM AIRSTRIP	PIPED SEWAGE	STP EFFLUENT - DISCHARGED	STP SOLIDS TO DISPOSAL
Construction Phase - Design (m ³ /h)	0.02	0.01	0.02	29.8	2.3	0.2
Construction Phase - Nominal (m ³ /h)	0.02	0.01	0.02	2.3	2.3	0.02
Operation Phase - Design (m ³ /h)	0.01	0.00	0.005	19.7	0.6	0.2
Operation Phase - Nominal (m ³ /h)	0.01	0.00	0.005	0.6	0.6	0.005



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CHECKED BY A. ZLATIC Date: 8/22/2011	DISCIP ENGR A. ZLATIC Date: 8/22/2011		
PROJ DES COORD H. CHARALAMBU Date: 8/22/2011	PROJ ENGR J. CASSON Date: 8/22/2011		
PROJECT MANAGER H. CHARALAMBU Date: 8/22/2011		Drawing No. H337697-7000-10-002-0001 SHEET 2 OF 2	Rev. E