Block Flow Diagram — Water Supply Balance

Labels on diagram:
- Truck Unloading Station
- Fresh Water Tank
- POTABLE WATER TREATMENT PLANT (PWTP) — Vendor Package
- POTABLE WATER TANK
- RAW WATER SUPPLY (COCKBURN LAKE) — NOTE 1.
- FIREWATER
- TO SEWAGE TREATMENT SYSTEM — BACKWASH WASTE
- ACCOMMODATION COMPLEX
- INCINERATION PLANT
- POWER PLANT
- POTABLE WATER PLANT
- Truck Unloading Station — NOTE 1. — ROAD DUST SUPPRESSION
- Truck Unloading Station — FIRE TRUCK
- NOTE 4.

NOTES:

1) The flows for these streams will occur in the summer time only.
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) Potable water will be supplied from the accommodation complex to the STP, Incineration Plant, Power Plant and PWTP using bottles.

LEGEND:

——————— CONTINUOUS FLOW.

- - - - - - - INTERMITTENT FLOW.

Stream No.	1	2	3	4	5	6
Stream Description	RAW WATER SUPPLY	FIREWATER	FEED TO POTABLE TREATMENT SYSTEM	PIPED FRESH WATER	TRUCKED FRESH WATER	POTABLE SYSTEM PRODUCT FLOW
Construction Phase - Design (m³/h)	42.9	300.0	4.1	10.2	42.9	4.1
Construction Phase - Nominal (m³/h)	4.7	0.0	4.1	0.4	0.1	4.1
Operation Phase - Design (m³/h)	-	-	-	-	-	-
Operation Phase - Nominal (m³/h)	-	-	-	-	-	-

Stream No.	7	8	9	10	11	12	13
Stream Description	POTABLE SYSTEM WASTE FLOW	WASH WATER TO INCIN. PLANT	WASH WATER TO POWER PLANT	WASH WATER TO PWTP	FRESHWATER TRUCK	FIRETRUCK WATER	POTABLE WATER TO ACC. COMPLEX
Construction Phase - Design (m³/h)	0.0	3.4	3.4	3.4	42.9	42.9	23.3
Construction Phase - Nominal (m³/h)	0.0	0.1	0.1	0.1	0.1	0.0	4.1
Operation Phase - Design (m³/h)	-	-	-	-	-	-	-
Operation Phase - Nominal (m³/h)	-	-	-	-	-	-	-

(Stamp: REGISTERED PROFESSIONAL ENGINEER — J.V. CASSON LICENSEE — NT/NU)

WASH WATER FROM POTABLE PLANT — (1)

WASH WATER FROM INCINERATOR — (2)

BACKWASH WASTE FROM POTABLE TREATMENT PLANT — (3)

WASH WATER FROM POWER PLANT — (4)

SEWAGE FROM ACCOMODATION AREA — (5)

SEWAGE FROM POWER PLANT — (6)

SEWAGE FROM POTABLE WATER TREATMENT PLANT — (7)

SEWAGE FROM INCINERATION PLANT — (8)

STORAGE TANK

Truck Unloading Station

(9)

RAW SEWAGE TO STEENSBY SITE

LEGEND:

——————— CONTINUOUS FLOW.

- - - - - - - - INTERMITTENT FLOW.

NOTES:

1) 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.
2) The peak flows for the accommodation facilities were determined using a peaking factor.
3) The division of trucked and piped facilities is based upon the proximity of the various facilities as indicated on layouts prepared by Hatch.
4) It has been assumed that relative sewage flows will be distributed through different facilities in the same proportions as the relative potable water flows.
5) Effluent reuse is optional. To be reviewed in detailed engineering.

Stream No.	1	2	3	4
Stream Description	WASH WATER FROM POTABLE PLANT	WASH WATER FROM INCIN.	PWTP BACKWASH WASTE STREAM	WASH WATER FROM POWER PLANT
Construction Phase - Design (m³/h)	3.4	3.4	0.001	3.4
Construction Phase - Nominal (m³/h)	0.1	0.1	0.001	0.1
Operation Phase - Design (m³/h)	-	-	-	-
Operation Phase - Nominal (m³/h)	-	-	-	-

Stream No.	5	6	7	8	9
Stream Description	SEWAGE FROM ACC. COMPLEX	SEWAGE FROM POWER PLANT	SEWAGE FROM PWTP	SEWAGE FROM INCIN. PLANT	RAW SEWAGE TO STEENSBY
Construction Phase - Design (m³/h)	28.70	0.04	0.04	0.02	42.9
Construction Phase - Nominal (m³/h)	3.78	0.04	0.04	0.02	4.3
Operation Phase - Design (m³/h)	-	-	-	-	-
Operation Phase - Nominal (m³/h)	-	-	-	-	-

HATCH **Baffinland** Iron Mines Corporation

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COCKBURN SOUTH TUNNELS CAMP - MARY RIVER PROJECT
BLOCK FLOW DIAGRAM
WASTE WATER BALANCE

| PROJECT MANAGER H. CHARALAMBU Date: 8/22/2011 | Drawing No. H337697-7000-10-002-0006 SHEET 2 OF 2 | Rev. E |