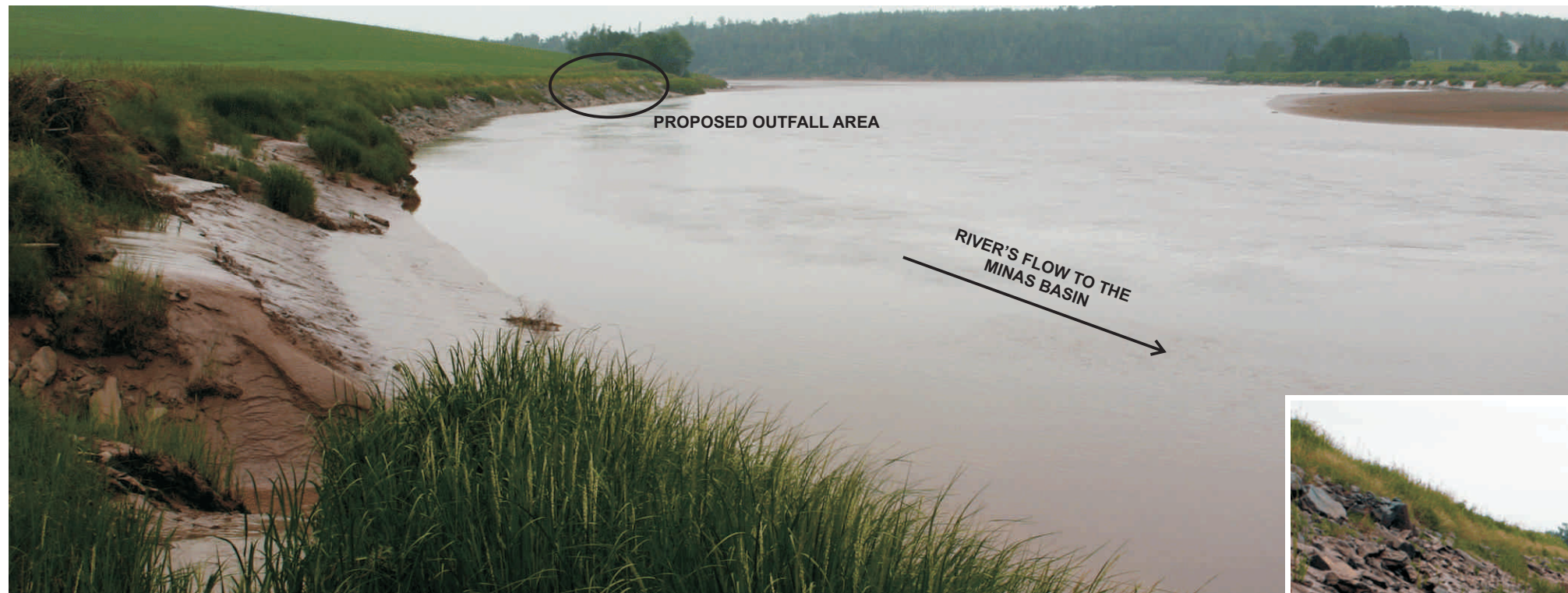


1. Low tide or natural river flow conditions.



2. Incoming tide.



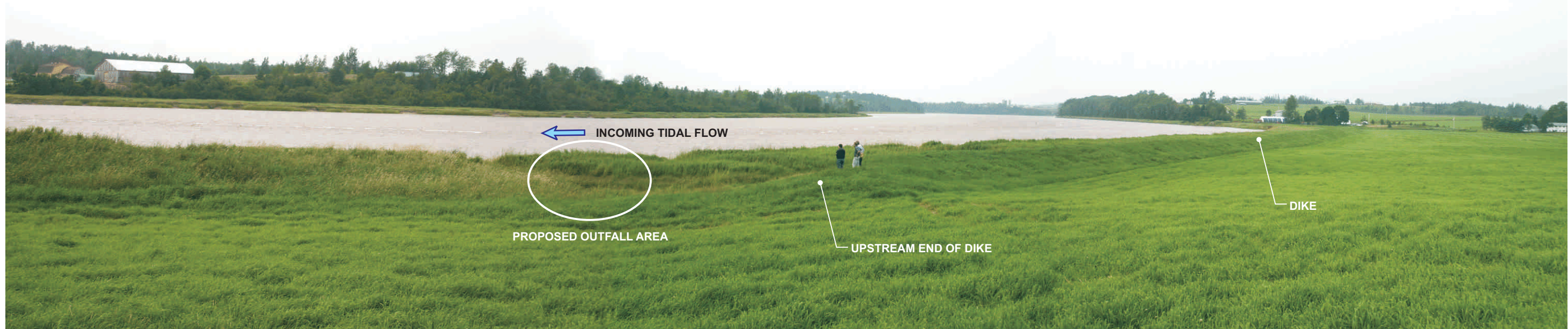
1. Low tide.



3. Close-up of riprap on the dike.



2. Incoming tide.



1. Incoming tide.



2.

Photo 1 by W. Veldman, P. Eng, Matrix Solutions, July 28, 2006.
 Photo 2 provided by Landis Energy.



DATE: OCTOBER 11, 2006		
JOB No.: 6639-522		
COREL FILE: 6639-Figures-06		
DESIGN: WV	DRAWN: JW	CHECK: WV

PROJECT: ALTON NATURAL GAS STORAGE

OVERALL SITE PHOTOGRAPHS



1. Embayment in bank (reportedly used as an outfall area to the river).



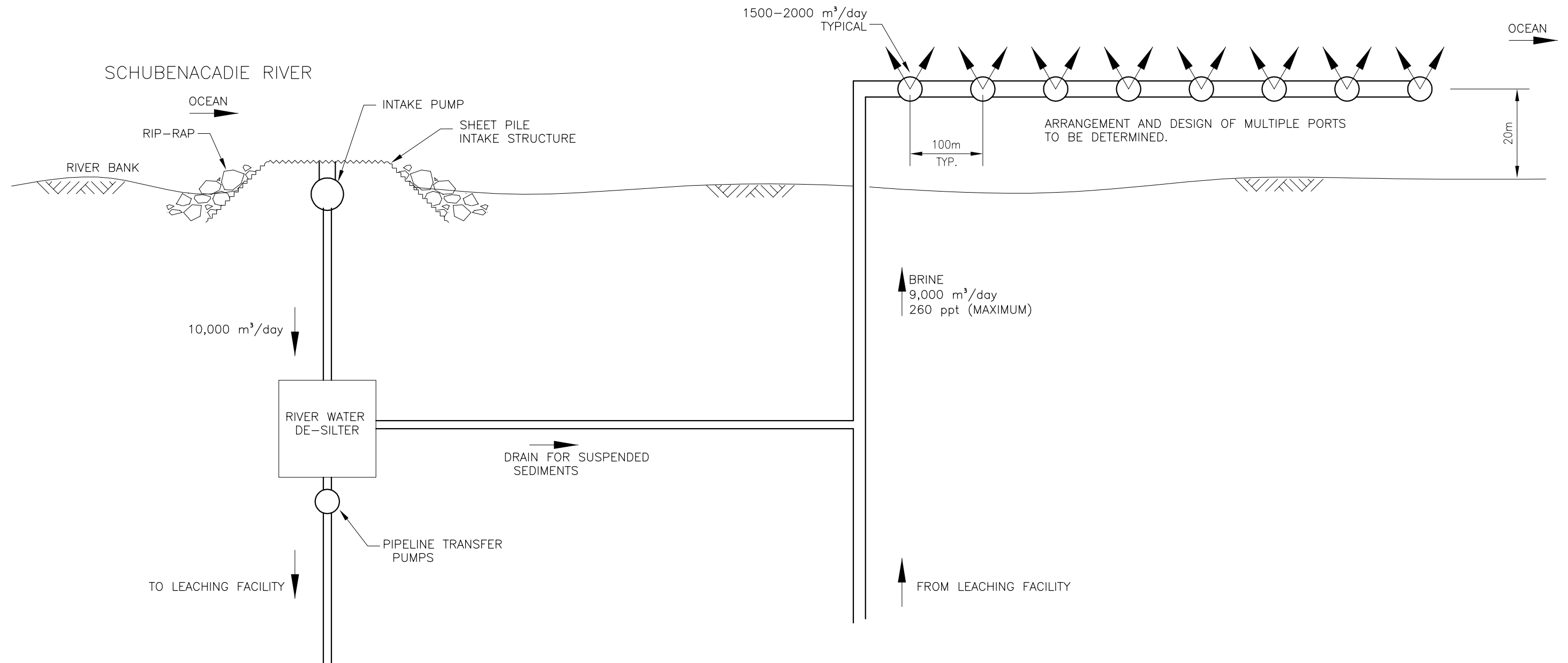
2. Golf course ponds (reported to fluctuate in accordance with water levels in the river).



DATE: OCTOBER 11, 2006		
JOB No.: 6639-522		
COREL FILE: 6639-Figures-06		
DESIGN: WV	DRAWN: JW	CHECK: WV

PROJECT: ALTON NATURAL GAS STORAGE

**LOCAL EXAMPLES OF OUTFALL AND PONDS
NEXT TO THE SHUBENACADIE RIVER**



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CALGARY, ALBERTA
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DESIGNED	WV	2007-01-17
DRAWN	MOD	2007-01-17
CHECKED		



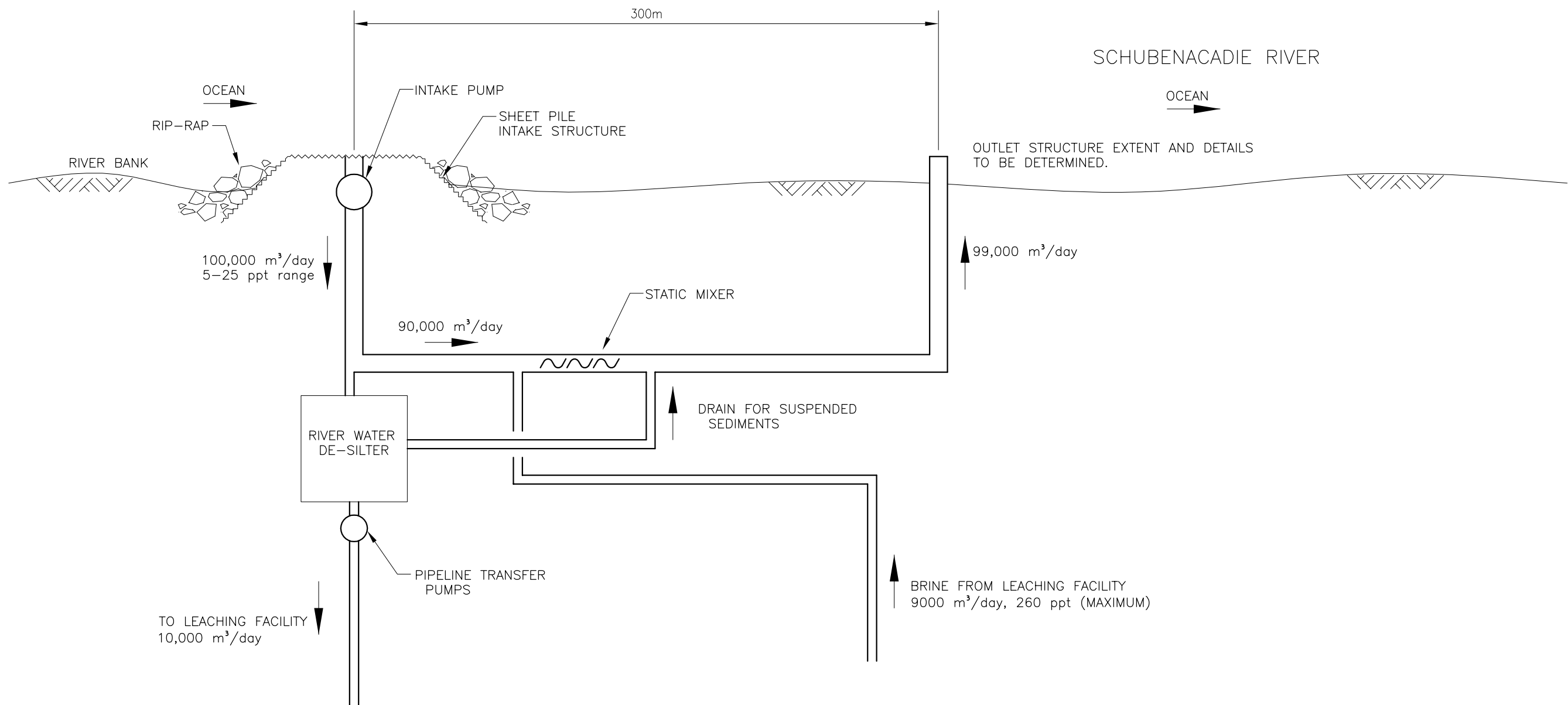
REFERENCE DRAWINGS	DRAWING NO.	NOTES:

NO.	REVISION	BY	DATE	CHKD.	APPR.
A	ISSUED FOR INFORMATION	MOD	07-01-19	-	-
B	ISSUED FOR INFORMATION	MOD	07-01-24	-	-
C	ISSUED FOR INFORMATION	MOD	07-02-27	-	-

SEAL:	PERMIT:

APPROVALS

CLIENT	ALTON NATURAL GAS STORAGE LP		
TITLE	SCHUBENACADIE RIVER FACILITIES CONCEPTUAL DESIGN OPTION 1 MULTI-PORT RIVER DIFFUSER		
SCALE	PROJECT NO.	DRAWING NO.	REV.
NTS	102-01-04	FIGURE 7	C



OPERATING PRINCIPLES:

1. CONTINUOUS PUMPING FROM THE RIVER, CONTINUOUS OUTFLOW INTO THE RIVER. AT ALL TIMES BRINE IS DILUTED BY A FACTOR OF 10.

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CALGARY, ALBERTA
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(403) 263-6773

	BY	DATE
DESIGNED	WV	2007-01-17
DRAWN	MOD	2007-01-17



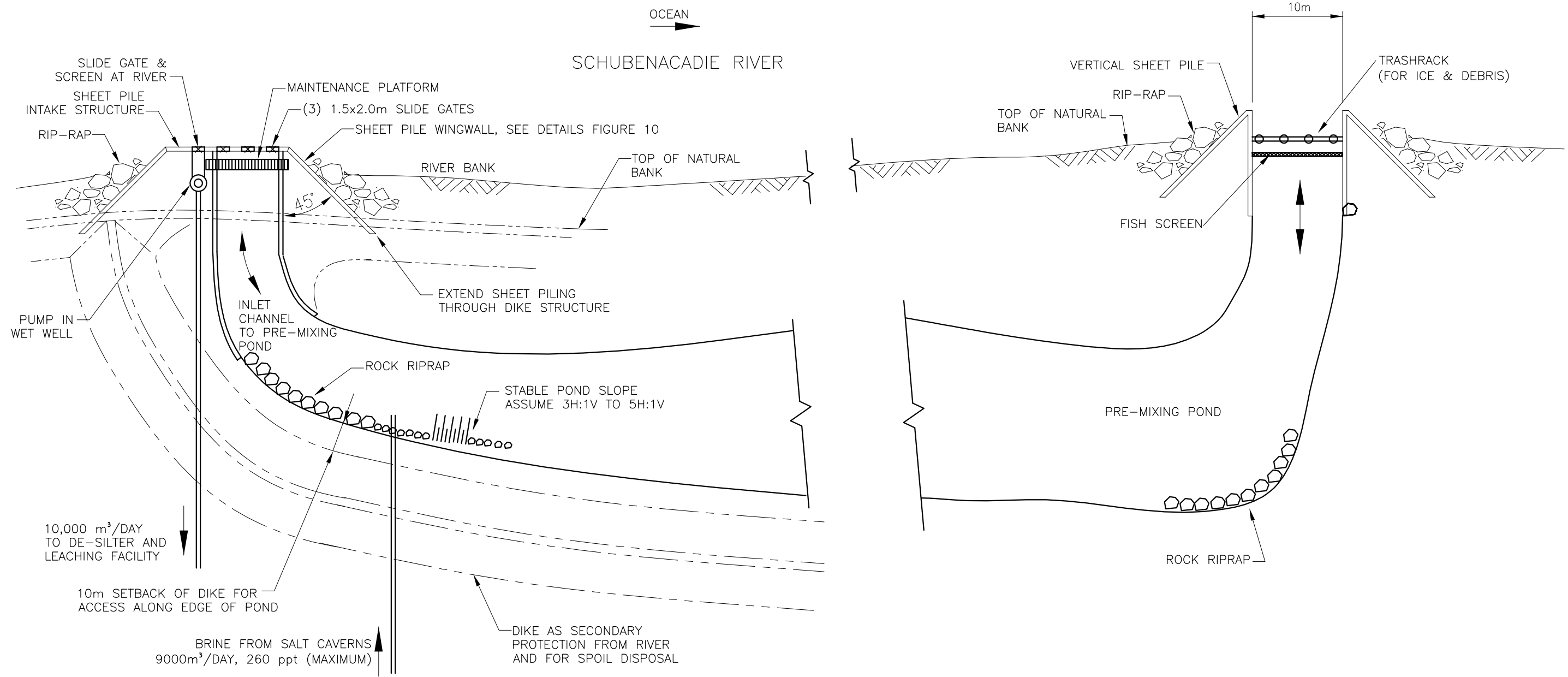
REFERENCE DRAWINGS	DRAWING NO.	NOTES:

NO.	REVISION	BY	DATE	CHKD.	APPR.
A	ISSUED FOR INFORMATION	MOD	07-01-19	-	-
B	ISSUED FOR INFORMATION	MOD	07-01-24	-	-
C	ISSUED FOR INFORMATION	MOD	07-02-27	-	-

SEAL:	PERMIT:

CHECKED	APPROVALS

CLIENT	ALTON NATURAL GAS STORAGE LP		
TITLE	SCHUBENACADIE RIVER FACILITIES CONCEPTUAL DESIGN OPTION 2 SINGLE-PORT RIVER OUTLET		
SCALE	PROJECT NO.	DRAWING NO.	REV.
NTS	102-01-04	FIGURE 8	C



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DESIGNED	BY	DATE
DRAWN	MOD.	2007-02-23



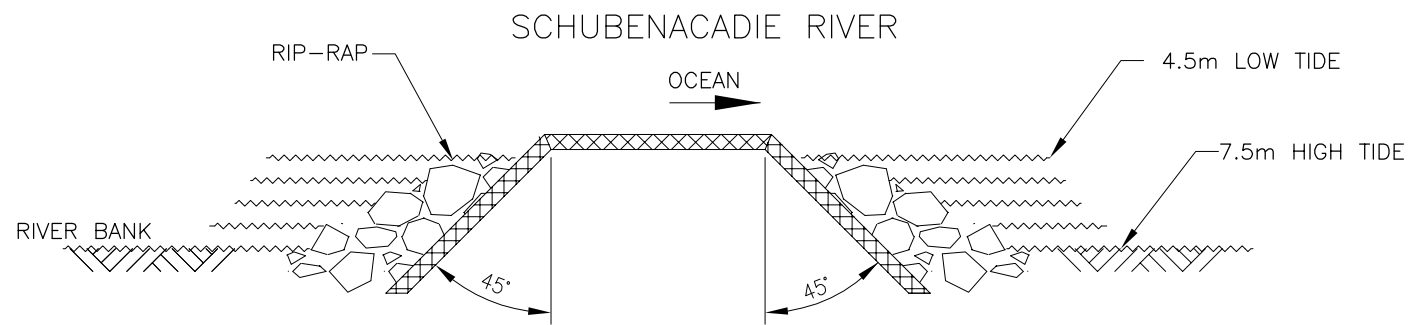
REFERENCE DRAWINGS	DRAWING NO.	NOTES:

NO.	REVISION	BY	DATE	CHKD.	APPR.
A	ISSUED FOR INFORMATION	MOD	07-02-27	-	-

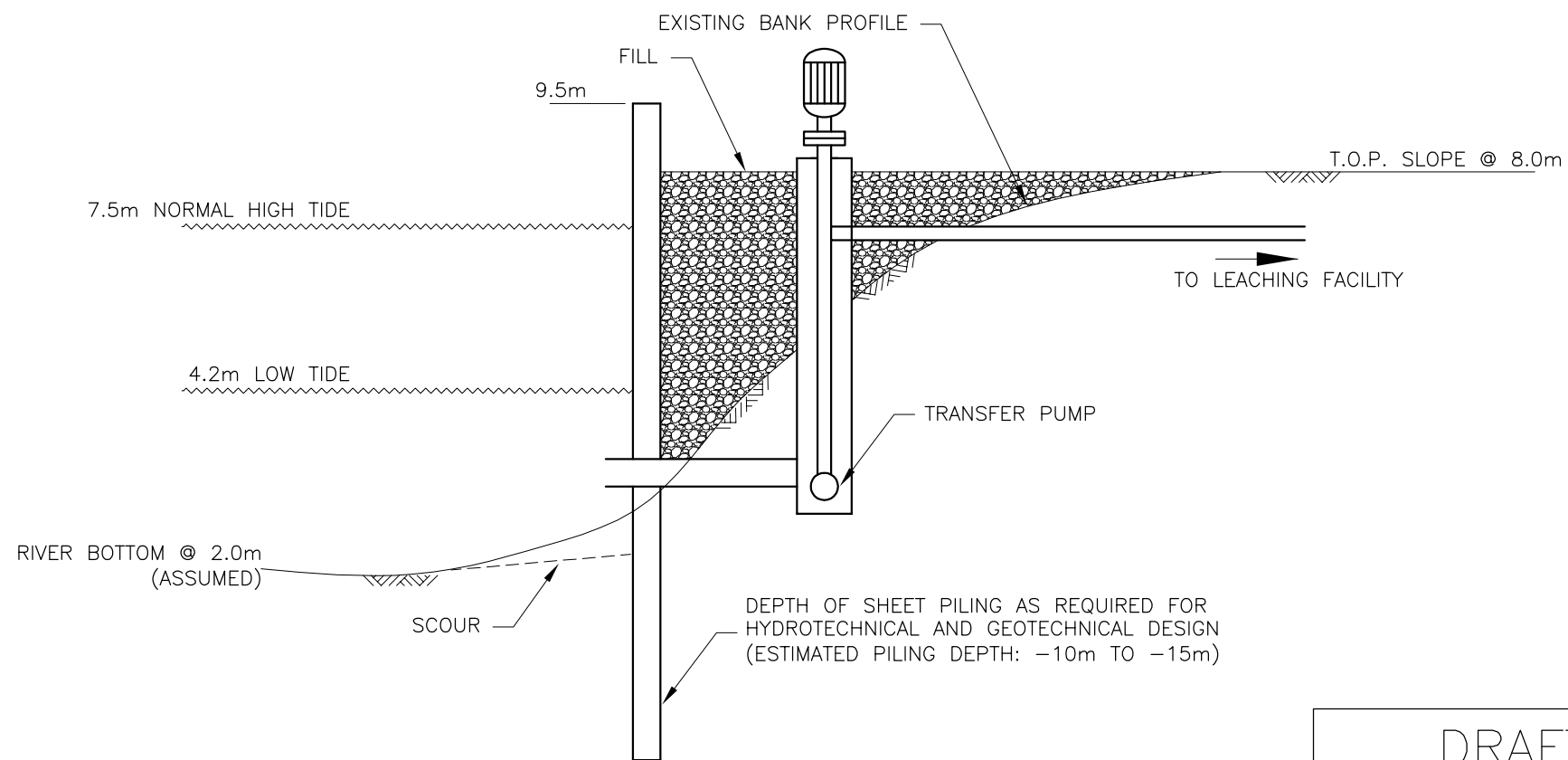
SEAL:	PERMIT:

CHECKED	APPROVALS

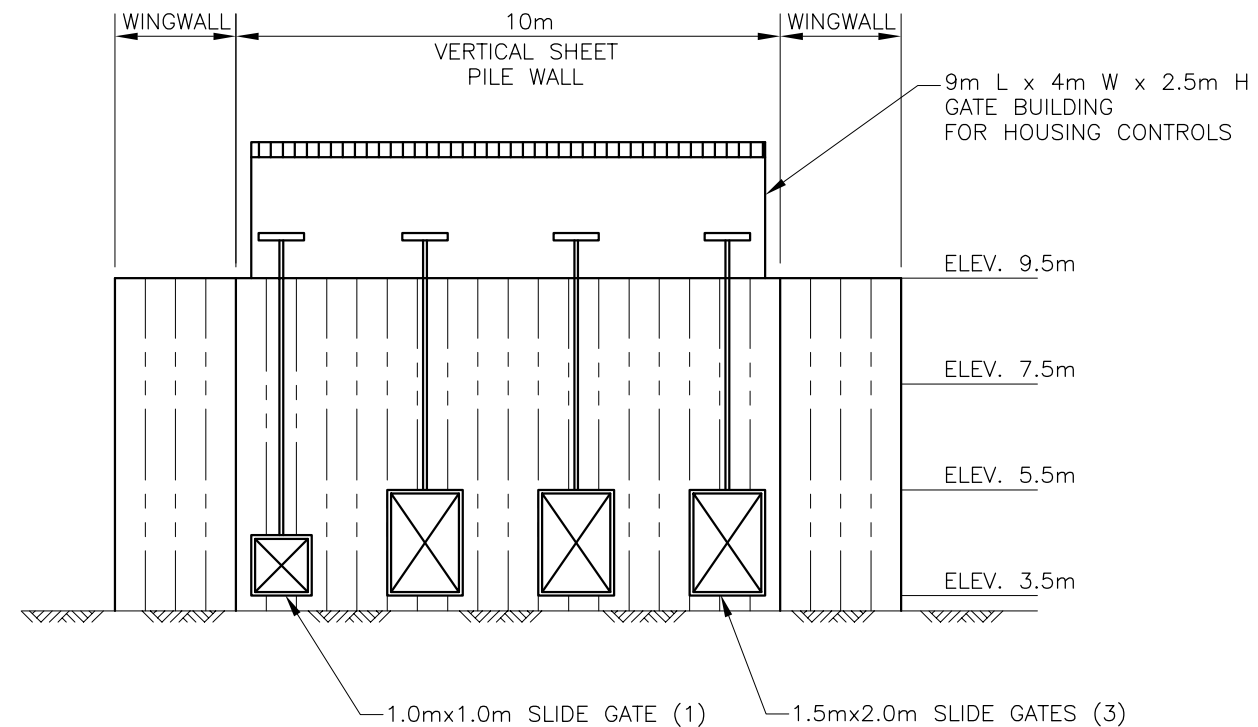
CLIENT	ALTON NATURAL GAS STORAGE LP		
TITLE	SCHUBENACADIE RIVER FACILITIES INTAKE/OUTLET STRUCTURE AND PRE-MIXING POND - OPTION 3		
SCALE	PROJECT NO.	DRAWING NO.	REV.
NTS	102-01-04	FIGURE 9	A



PLAN - SHEET PILE INTAKE STRUCTURE



ELEVATION - CONCEPTUAL DESIGN SHEET PILE INTAKE STRUCTURE & WATER INTAKE



NOTE: ALL GATE OPENINGS TO HAVE DEBRIS AND ICE RACKS AND FISH SCREENS.

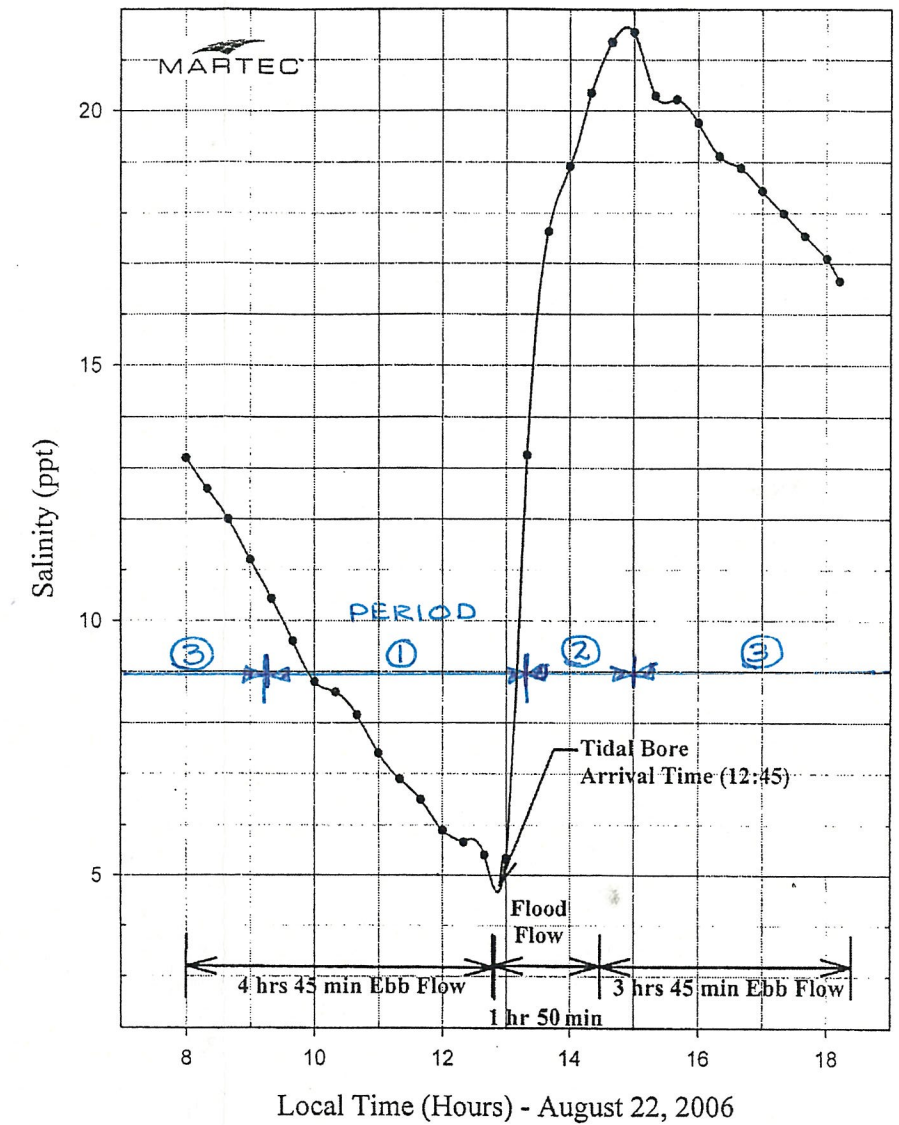
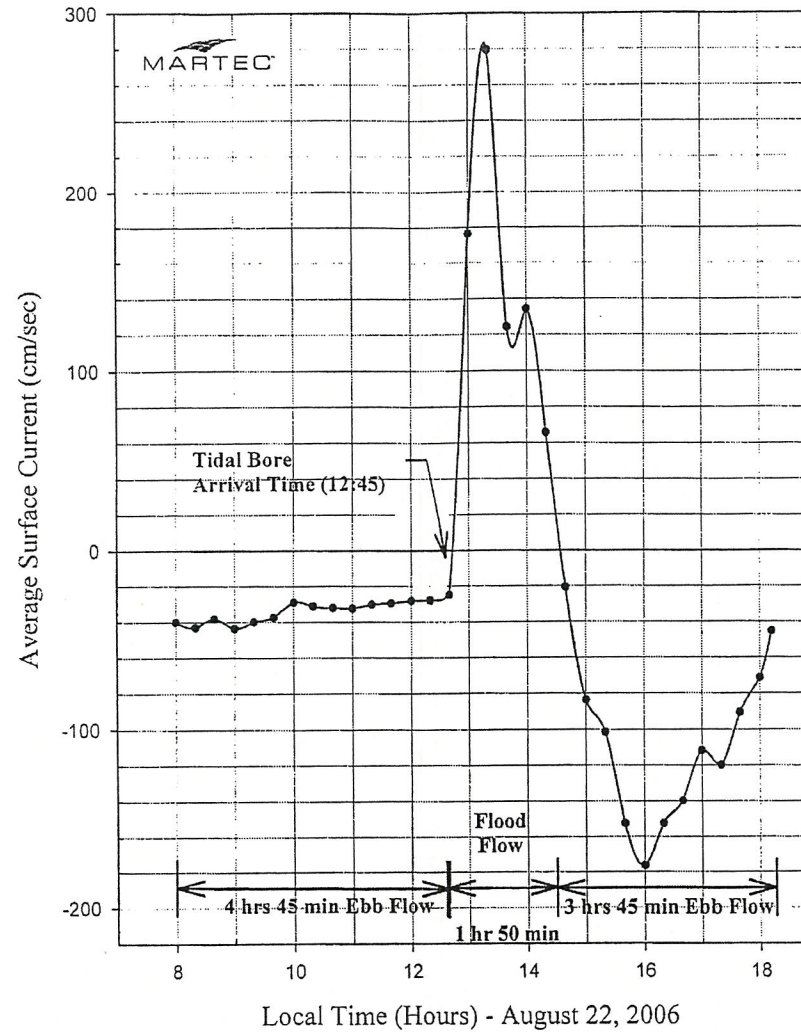
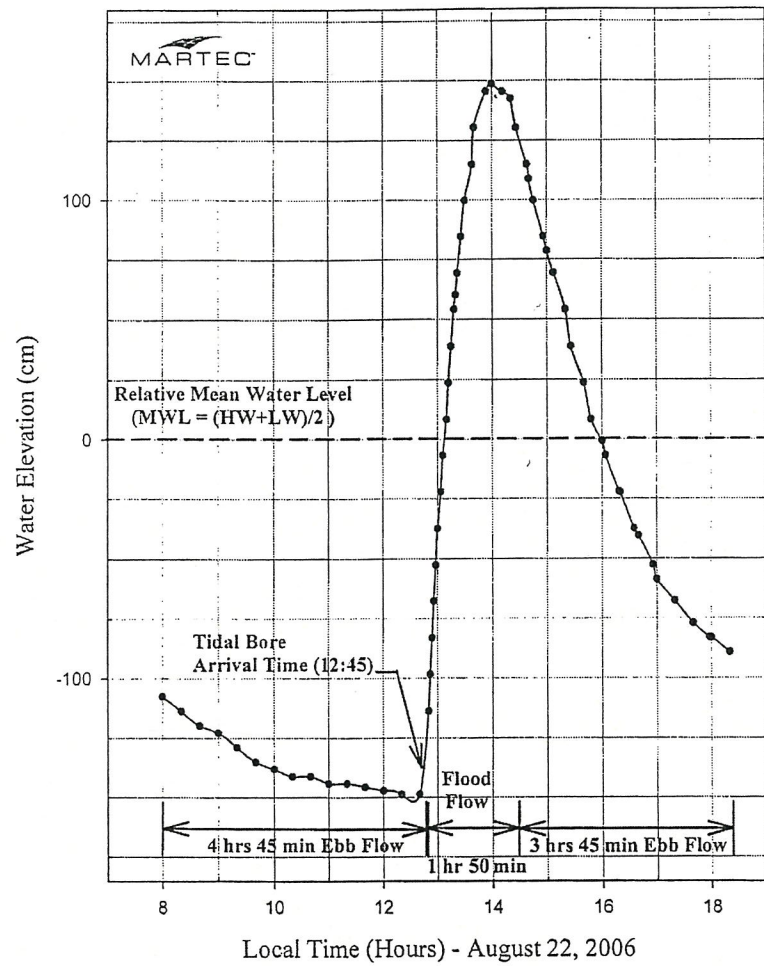
ELEVATION - RIVERSIDE VIEW UPSTREAM INTAKE STRUCTURE



PHOTO EXAMPLE OF SHEET PILING

DRAFT
CONCEPTUAL DESIGN ONLY

SOLTECH PROJECTS INC. #280, 5920 1A STREET S.W. CALGARY, ALBERTA T2H 0G3 (403) 263-6773	BY: DATE DESIGNED: WJ, 2007-01-17 DRAWN: MOD, 2007-01-17	Matrix Solutions Inc. S.W. ENVIRONMENT & ENGINEERING	
	CHECKED: _____ APPROVALS: _____ PROCESS: _____ MECH.: _____ STRUCT.: _____ ELECT./INSTR.: _____ OWNER: _____		CLIENT: ALTON NATURAL GAS STORAGE LP TITLE: SCHUBENACADIE RIVER FACILITIES RIVER INTAKE DETAILS
REFERENCE DRAWINGS: _____ DRAWING NO.: _____ NOTES: _____	NO. REVISION BY DATE CHKD. APPR. A ISSUED FOR INFORMATION MOD 07-01-19 - - B ISSUED FOR INFORMATION MOD 07-01-24 - - C ISSUED FOR INFORMATION MOD 07-02-27 - -	SEAL: _____ PERMIT: _____	SCALE: NTS PROJECT NO.: 102-01-04 DRAWING NO.: FIGURE 10 REV. B



<u>OPERATIONAL SCENARIOS</u>			
PERIOD	DURATION	UPSTREAM GATES	BRINE DISCHARGE INTO PRE-MIXING POND
①	4 hrs	OPEN	NO
②	1 hr. 45 min.	CLOSED	YES
③	6 hrs. 30 min.	OPEN	YES

NOTES:

1. DATA AS PER MARTEC
2. THE OPERATIONAL SCENARIOS WILL BE TIMED USING THE ARRIVAL OF THE TIDAL BORE AS A KEY REFERENCE TIME
3. ATTRIBUTES OF THE PERIODS ARE:
 - ① - Lowest salinity, river flow period. Low velocity period
 - ② - Flood flow or incoming tide. Rapid increase in water level, velocity and river salinity
 - ③ - Ebb flow or receding tide. Decrease in water level, velocity and salinity.

OPERATIONAL SCENARIOS FOR THE PRE-MIXING POND

FIGURE 11

Wim M. Veldman