## **Worksheet to Calculate Lakeshore Erosion Potential**

If submitting as part of an application to receive regulatory approval for an erosion control project, complete the applicant information below.

## Location:

Site Assessment Location  ½ Sec. Twp. Rge. W_M	Lot Parcel Block Plan No.	Name of Subdivision	Name of Water Body if known

Applicant's Name and Address:				
Print Name or Registered Company Name:	Home Telephone:	Bus. Telephone:		
		( )	( )	
Address (Street, P.O. Box, etc.)	Place, Province:	Postal Code:	Fax:	
			( )	
Is the applicant the riparian land owner? Yes  Is the applicant a Canadian citizen? Yes  Is the applicant an employee of the Government  No Yes Department.	No Has the applica	e Legislative Assembly?		
Authorized Representative (if not	the same as Applic	cant):		
Print Name or Company Name:		Home Telephone:	Bus. Telephone:	
		( )	( )	
Address (Street, P.O. Box, etc.)	Place, Province:	Postal Code:	Fax:	
			( )	

## **PART A: Bank & Shoreline Features**

Shoreline Variables	Descriptive Categories Erosion Intensity Value is Located in Parenthesis on Left Side of Each Category Box					Assigned EI		
Bank Height (m) - height of bank (metres), measure from toe of the bank to top of the bank-lip.	(1) <0.3 m	(2) 0.3 – 1.5 m		both adjacent o			(5) > 6 m	
Influence of Adjacent Structures – likelihood that adjacent structures are causing flank erosion at the site	(0) no hard armouring on either adjacent property	(1) hard armou on one adjacent proper	both adja rty propertie			nouring cent th	(4) hard armouring on both adjacent properties with measurable recession adjacent to both structures	
Bank Vegetation - type and abundance of the vegetation occurring on the bank face and immediately on top of the bank lip	(0) bank composed of rocky outcropping unable to support vegetar	(1) dense vegetation, upland trees, shrubs and grasses, including lawns (4) clumps of vegeta alternating with areas lacking vegetat		with ng vegetation	(cleared), crop or agricultural			
Bank Stability - The degree to which bank and adjacent area (within 3 metres of the bank—lip) is stabilized by natural ground, shrub, and canopy vegetation (outside a 3 m pier access Corridor). Human disturbance is typified by tree removal, brushing, mowing, and lawn establishment.	(0) moderate to dense canopy trees with moderato to dense natural shrub layer; or other natural features prevents establishment of vegetation.	natural g vegetatic with shrub la reduced with mo	erate to dense ground on and canopy trees yer substantially or few canopy trees derate to tural shrub layer.	to dense ca trees	vith moderate		(7) established lawn with few canopy trees	
Shoreline Geometry - general shape of the shoreline at the point of interest plus 180 metres on either side.	(1) coves or bays		(4) irregular shore straight shoreline	) irregular shoreline or raight shoreline		(8) headland, point, or island		
Boat Wakes - proximity to and use of boat channels	(1) slow boat use and no wat wake boarding		(6) Open to but far from water skiing, wake boarding and fast boat use			(12) Close to wake boarding area, water skiing and fast boat use		

PART A SCORE	

PART B/C: MATRIC	ES AND ATTENU	IATION MOD	IEICATIONS							
Fetch Length										
Step 1: Determine I point of interest									the shorelin	ne at the
	Length Base Score	<0.5	0.5-1 1	1-2 2	2-4 3	4-16 4	16-48 5	>48	BASE S	CORE 1
	Fetch considers	ice and wave	s due to wind st	rees in ice sh	eets leadin	g to rafting				
Step 2: Determine to				to Aquatic V	egetation k	oy compari	ng observa	ntion of ve	getation in	the
Aquatic Vegetation				Moderate						
			C	or	Dense or					
	Density	None	Sparse or sub- mergent	Scattered Patches	Abundan t					
	Modifier Modifier based	0 I on field obs	0 ervations of en	-1 nergent vege	-2 etation atte	enuation			MODIF	IER 1-1
Step 3: Determine t	effects on wave			to Nearshore	e Slope ba	sed on me	asurement	of water	depth at 6 /	m and at
Nearshore Slope		h (m) at 30 m	Depth (m) at 6		0.9 to 1.8		>3.7			
		<0.3	-1	-1	-1	-2	-2 -2			
	Slope Modifier	0.3 to 0.9 0.9 to 1.8	0	-1 0	-1 -1	-2 -1	-1			
		1.8 to 3.7 >3.7	+1 +1	+1	0	-1 -1	-1 -1		MODIF	IER 1-2
	Modifier based of Environments, T				ter RWG C	arter 1991	Coastal			
Step 4: Determine t Modified Score 1 =	he <u>Fetch Length</u>	Modified Sco	<u>re</u>		(Step 3)				MODIFIED	SCORE 1
If Modified Score is				Record Mod		1 on Matrix	, 1 (aaa Sta	n 6 holow)	WICONITIES	J JCOKE I
				Record ivide	lilled Score	On Matrix	(1 (566 316	ep o below)		
Shore Orientation										
Step 5: Determine \$	Shore Orientation Direction	Base Score	2, and select it of Low 360(0)-	Moderate	High 135-	Very				
Red Deer Region		<0.5 km fetches	135	180-270	180	High 270- 360	or			
	Base Score	0	1	2	3	4				
Edmonton Region	Direction	Very Low <0.5 km	Low 360(0)-120	Moderate 180-270	High 120- 180	Very High 270-	or			
	Danie Co	fetches				360				
	Base Score	0	1	2	3	4				
Cold Lake Region	Direction	Very Low <0.5 km	Low 330-70	Moderate 135-240	High 70- 135	Very High 240-330	or			
	Base Score	fetches 0	1	2	3	4				
Lac La Biche	Direction	Very Low	Low 315-135	Moderate	High 135-	Very High	or			
Region	Direction	<0.5 km fetches		180-270	180	270-315				
	Base Score	0	1	2	3	4				
Slave Lake Region	Direction	Very Low	Low 135-270	Moderate	High 90-	Very High				
		<0.5 km fetches		315-90	135	270-315				
	Base Score	0	1	2	3	4				
	Based on wind r	ose diagrams	derived from St	antec 2004 re	port.				BASE S	CORE 2
				Recora E	ase <u>Score</u>	2 on Matrix	( 1 (see Ste	ep 6 below)		
MATRIX 1 EXPOS	URE									
		lified Score (S	itep 4) and Shore	e Orientation	Base Score	e (Step 5).	establish th	ne EROSIO	N POTENT	IAL of the
MATRIX 1 EXPOSI Step 6: Using the <u>F</u> shoreline by cross-	etch Length Mod	lified Score (S	itep 4) and <u>Shore</u> Matrix. The Mat	e Orientation rix Score is the	Base Score	≘ (Step 5), of the two N	establish th lodified Sco	ne EROSIC ores.	N POTENT	IAL of the
Step 6: Using the E shoreline by cross-	etch Length Mod	ified Score (Scores on the I	step 4) and <u>Shore</u> Matrix. The Mat	e Orientation rix Score is the Shore Orientation	Base Score	≘ (Step 5), of the two M	establish th Iodified Sco	ne EROSIC pres.	N POTENT	IAL of the
Step 6: Using the E	etch Length Mod	cores on the I	Matrix. The Mat	Shore Orientation Base Score	ne product	of the two N	establish th	ne EROSIO pres.	N POTENT	IAL of the
Step 6: Using the E shoreline by cross-r	etch Length Mod	cores on the I	otep 4) and <u>Shorr</u> Matrix. The Mat Shore Orientation	Shore Orientation Base Score	ne product	of the two N	establish th Iodified Sco	ne EROSIC pres.	N POTENT	IAL of the
Step 6: Using the E shoreline by cross-r	etch Length Mod	From Step 4	Shore Orientation	Shore Orientation Base Score on Base Score 1 0	e 2	From Step 5	Andified Sca	5 0	N POTENT	IAL of the
Step 6: Using the E shoreline by cross-r	etch Length Mod eferencing the S Fetch Length	From Step 4  Score 0 1 2	Shore Orientation	Shore Orientation Base Score on Base Score 1 0 1 2	e 2 0 2 4	From Step 5	Andified Sca	5 0 5	N POTENT	IAL of the
Step 6: Using the E shoreline by cross-r	etch Length Mod eferencing the S	From Step 4  Score 0 1 2 3 4	Shore Orientation  O  O  O  O  O  O  O	Shore Orientation Base Score on Base Score 1 0 1 2 3 4	e 2 0 2 4 6 8	From Step 5  3 0 3 6 9	4 0 4 8 12	5 0 5 10 15 20		
Step 6: Using the E shoreline by cross-r	etch Length Mod referencing the S Fetch Length Modified	From Step 4  Score 0 1 2 3 4 5 6	Shore Orientation  O  O  O  O  O  O  O  O  O  O  O  O  O	Shore Orientation Base Score  0 1 0 1 2 2 3 4 5 6	e 2 0 2 4 6 8 10 12	From Step 5  3 0 3 6 9 12 15	4 0 4 8 12 16 20 24	5 0 5 10 15 20 25 30	MATRIX	
Step 6: Using the E shoreline by cross-r	etch Length Mod referencing the S Fetch Length Modified	From Step 4  Score 0 1 2 3 4 5	Shore Orientation O O O O O O O O O O O O O O O O O O O	Shore Orientation Base Score  On Base Score  1  0  1  2  3  4  5	e 2 0 2 4 6 8 10	From Step 5  3 0 3 6 9 12	4 0 4 12 16 20	5 0 5 10 15 20		
Step 6: Using the E shoreline by cross-r	etch Length Mod referencing the S Fetch Length Modified	From Step 4  Score 0 1 2 3 4 5 6 7	Shore Orientation O O O O O O O O O O O O O O O O O O O	Shore Orientation Base Score  On Base Score  1  0  1  2  3  4  5  6  7	e 2 0 2 4 6 8 10 12 14	From Step 5  3 0 3 6 9 12 15 18 21	4 0 4 8 12 16 20 24	5 0 5 10 15 20 25 30 35		
Step 6: Using the E shoreline by cross-r	etch Length Mod referencing the S Fetch Length Modified	From Step 4  Score 0 1 2 3 4 5 6 7 8 9	Shore Orientation  O  O  O  O  O  O  O  O  O  O  O  O  O	Shore Orientation Base Score  1 0 1 1 2 3 4 5 6 7 8 9 10 11	e 2 0 2 4 6 8 10 12 14 16 18 20 22	of the two N From Step 5  3 0 3 6 9 112 15 18 21 24 27 30 33	4 0 4 8 12 16 20 24 28 32 36	5 0 5 10 15 20 25 30 35 40		
Step 6: Using the E shoreline by cross-i Fetch Length Modified Score	Fetch Length Modified Score	Score 0 1 2 3 4 5 6 7 8 9 10 11	Shore Orientation  O O O O O O O O O O O O O O O O O O	Shore Orientation Base Score on Base Score o	e 2 0 2 4 6 6 8 10 12 14 16 18 20 22 25 - product	3 0 3 0 3 6 9 12 15 18 21 24 27 30 33 of Scores	4 0 4 8 12 16 20 24 28 32 36 40	5 0 5 10 15 20 25 30 35 40 45 50		
Step 6: Using the E shoreline by cross-t Fetch Length Modified Score	Fetch Length Modified Score	Score	Shore Orientation  O O O O O O O O O O O O O O O O O O	Shore   Shore	e 2 0 0 2 4 6 8 10 12 14 16 18 20 22 ss-product reference p Loose	From Step 5  3 0 3 6 9 12 15 18 21 24 27 30 33 of Scores	4 0 4 8 12 16 20 24 28 32 36 40 44	5 0 5 10 15 20 25 30 35 40 45 50		
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Step 6: Using the E shoreline by cross-i Fetch Length Modified Score	Fetch Length Modified Score	Score  O  1  2  3  4  5  6  7  8  9  10  11  Base Score  Bedrock or  Armoured (manmade and boulder	Shore Orientation  Oncompage of the state of	Shore Orientation Base Score on Base Score o	e 2 0 2 4 6 8 10 12 14 16 18 20 22 cs-product creference p Loose Sands,	3 0 3 6 9 12 15 18 21 24 27 30 33 of Scores	4 0 4 8 12 16 20 24 28 32 36 40 44	5 0 5 10 15 20 25 30 35 40 45 50		
Step 6: Using the E shoreline by cross-i Fetch Length Modified Score	Fetch Length Modified Score	Score 0 1 2 3 4 5 6 7 8 9 10 11 11 n Base Score Bedrock or Armoured (manmade and boulder shores)	Shore Orientation  O O O O O O O O O O O O O O O O O O	Shore Orientation Base Score on Base Score o	e 2 0 2 4 6 8 10 12 14 16 18 20 22 ss-product reference p Loose Sands, Silts,	3 0 3 6 9 12 15 18 21 24 27 30 33 of Scores	4 0 4 8 12 16 20 24 28 32 36 40 44	5 0 5 10 15 20 25 30 35 40 45 50		SCORE 1
Step 6: Using the E shoreline by cross-i Fetch Length Modified Score  Bank Composition Step 7: Determine f	Fetch Length Modified Score  Bank Compositio Type  Base Score	From Step 4  Score 0 1 2 3 4 5 6 7 8 9 10 11 11  Base Score Bedrock or Armoured (manmade and boulder shows) 0 Based on typ	Shore Orientation  O O O O O O O O O O O O O O O O O O	Shore Orientation Base Score on Base Score o	e 2 0 0 2 4 6 8 10 12 14 16 18 20 22 ss-product reference p Lose Salts, Silts, Topsoil 3	From Step 5  3 0 3 6 9 12 15 18 21 27 30 33 of Scores Organics (marsh, ooze)	4 0 4 8 12 16 20 24 28 32 36 40 44	5 0 5 10 15 20 25 30 35 40 45 50 55	MATRIX  BASE SCO	SCORE 1
Step 6: Using the E shoreline by cross-respond to the E shoreline by cross-respond to the E shoreline by the	Fetch Length Modified Score  Bank Compositio Type  Base Score	Score  O 1 2 3 4 5 6 7 8 9 10 11 11 n Base Score Bedrock or Armoured (manmade and boulder shores) O Based on tyr sition Base Sc	Shore Orientation  Shore Orientation  O O O O O O O O O O O O O O O O O O	Shore Orientation Base Score on Base Score o	e 2 0 0 2 4 6 8 10 12 14 16 18 20 22 ss-product reference p Lose Salts, Silts, Topsoil 3	From Step 5  3 0 3 6 9 12 15 18 21 27 30 33 of Scores Organics (marsh, ooze)	4 0 4 8 12 16 20 24 28 32 36 40 44	5 0 5 10 15 20 25 30 35 40 45 50 55	MATRIX  BASE SCO	SCORE 1
Step 6: Using the E shoreline by cross-i Fetch Length Modified Score  Bank Composition Step 7: Determine E	Fetch Length Modified Score  Bank Compositio Type  Base Score	Score  Sc	Shore Orientation  Shore Orientation  O O O O O O O O O O O O O O O O O O	Shore Orientation Base Score on Base Score o	e  2 0 2 4 6 8 10 12 14 16 18 20 22 ss-product reference p Loose Sands, Silts, Topsoil	of the two North Step 5  3	4 0 4 8 12 16 20 24 28 32 36 40 44	5 0 5 10 15 20 25 30 35 40 45 50 55	MATRIX  BASE SCO	SCORE 1
Step 6: Using the E shoreline by cross-respond to the E shoreline by cross-respond to the E shoreline by the	Fetch Length Modified Score  Bank Compositio Type  Base Score  Bank Compositio Type	Score  Score  Step 4  Score  Step 4  Score	Shore Orientation  One o	Shore Orientation Base Score on Base Score o	e 2 0 2 4 6 8 10 12 14 16 18 20 22 sr-perduct	of the two North Step 5  3	4 0 4 8 12 16 20 24 28 32 36 40 44	5 0 5 10 15 20 25 30 35 40 45 50 55	MATRIX  BASE SCO	SCORE 1
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Step 6: Using the E shoreline by cross-i Fetch Length Modified Score  Bank Composition Step 7: Determine 5  Step 8: Determine 5  Material Type	Fetch Length Mod referencing the S  Fetch Length Modified Score  Base Score  Base Score  Base Score  Gualitative  Measured Slope Bedrock Hard Till Loose Till Sonds, Silts Organits Coess Slope Classes b Resources Inve	Score  Score  Score  Step 4  Step 4  Step 4  Step 4  Step 4  Step 4  Step 5  Step 9  Step 10  Step 11  St	Shore Orientation  Shore Orientation  Shore Orientation  One o	Score is the state of the state	e 2 0 2 4 6 8 10 12 14 16 18 20 22 s-product reference p Loose Sands, Silts, Topsoil 3 rta pe from av	From Step 5  3 0 3 6 9 12 15 18 21 24 27 30 33 of Scores whotes Organics (marsh, ooze)	4 0 4 8 12 20 24 28 32 36 40 44 Loess (dunes)	5 0 5 10 15 20 25 30 35 40 45 50 55	MATRIX  BASE SCOI	SCORE 1
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Step 6: Using the Eshoreline by cross-instance b	Fetch Length Mod referencing the S  Fetch Length Modified Score  Base Score  Base Score  Base Score  Gualitative  Measured Slope Bedrock Hard Till Loose Till Sonds, Silts Organits Coess Slope Classes b Resources Inve	Score  Score  Score  Step 4  Step 4  Step 4  Step 4  Step 4  Step 4  Step 5  Step 9  Step 10  Step 11  St	Shore Orientation  Shore Orientation  Shore Orientation  One o	Score is the state of the state	e 2 0 2 4 6 8 10 12 14 16 18 20 22 s-product reference p Loose Sands, Silts, Topsoil 3 rta pe from av	From Step 5  3 0 3 6 9 12 15 18 21 24 27 30 33 of Scores whotes Organics (marsh, ooze)	4 0 4 8 12 20 24 28 32 36 40 44 Loess (dunes)	5 0 5 10 15 20 25 30 35 40 45 50 55	MATRIX  BASE SCOI  a or from  MODIFIER	SCORE 1 RE 3
Step 6: Using the Eshoreline by cross-in- Fetch Length Modified Score  Bank Composition Step 7: Determine to the substitution of the substitution	Fetch Length Modified Score  Bank Compositio Type  Base Score  Base Score  Cualitative  Measured Slope Bedrock Hard Till Loose Till Sonds, Silts Organics Loess Slope Classes b Resources Inve Howes and Ker he Bank Compos	Score  Score  Score  Step 4  Score  Step 4  Score  Step 4  Score  Step 4  Step 4  Step 4  Step 4  Step 4  Step 4  Step 5  Step 9  Step 10  Step 11	Shore Orientation  Shore Orientation  Shore Orientation  One o	Shore Orientation Shore Orientation Base Score on Base Sco	e  2 0 2 4 6 8 10 12 14 16 18 20 22 s-reference p Loose Sands, Silts, Topsoil  3 rta pe from av Very Steep Steeper the degrees 0 +3 +4 +4 -4 orezone Me or BC, 2nd is	of the two N From Step 5  3 0 3 6 9 12 15 18 21 24 27 30 33 of Scores hotos Organics (marsh, ooze)  4 vailable to	4 0 4 8 12 16 20 24 28 32 36 40 44 Loess (dunes)	5 0 5 10 15 20 25 30 35 40 45 50 55	MATRIX  BASE SCOI a or from  MODIFIER	SCORE 1  RE 3  3-1
Step 6: Using the Eshoreline by cross-teshoreline b	Fetch Length Modified Score  Bank Compositio Type  Base Score  Base Score  Cualitative  Measured Slope Bedrock Hard Till Loose Till Sonds, Silts Organics Loess Slope Classes b Resources Inve Howes and Ker he Bank Compos	Score  Score  Score  Step 4  Score  Step 4  Score  Step 4  Score  Step 4  Step 4  Step 4  Step 4  Step 4  Step 4  Step 5  Step 9  Step 10  Step 11	Shore Orientation  Shore Orientation  Shore Orientation  One o	Shore Orientation Shore Orientation Base Score on Base Sco	e  2 0 2 4 6 8 10 12 14 16 18 20 22 s-reference p Loose Sands, Silts, Topsoil  3 rta pe from av Very Steep Steeper the degrees 0 +3 +4 +4 -4 orezone Me or BC, 2nd is	of the two N From Step 5  3 0 3 6 9 12 15 18 21 24 27 30 33 of Scores hotos Organics (marsh, ooze)  4 vailable to	4 0 4 8 12 16 20 24 28 32 36 40 44 Loess (dunes)	5 0 5 10 15 20 25 30 35 40 45 50 55	BASE SCOLA OF FROM MODIFIER	SCORE 1  RE 3  3-1
Step 6: Using the Eshoreline by cross-in- Fetch Length Modified Score  Bank Composition Step 7: Determine to the substitution of the substitution	Fetch Length Modified Score  Bank Compositio Type  Base Score  Base Score  Cualitative  Measured Slope Bedrock Hard Till Loose Till Sonds, Silts Organics Loess Slope Classes b Resources Inve Howes and Ker he Bank Compos	Score  Score  Score  Step 4  Score  Step 4  Score  Step 4  Score  Step 4  Step 4  Step 4  Step 4  Step 4  Step 4  Step 5  Step 9  Step 10  Step 11	Shore Orientation  Shore Orientation  Shore Orientation  One o	Shore Orientation Shore Orientation Base Score on Base Sco	e  2 0 2 4 6 8 10 12 14 16 18 20 22 s-reference p Loose Sands, Silts, Topsoil  3 rta pe from av Very Steep Steeper the degrees 0 +3 +4 +4 -4 orezone Me or BC, 2nd is	of the two N From Step 5  3 0 3 6 9 12 15 18 21 24 27 30 33 of Scores hotos Organics (marsh, ooze)  4 vailable to	4 0 4 8 12 16 20 24 28 32 36 40 44 Loess (dunes)	5 0 5 10 15 20 25 30 35 40 45 50 55	MATRIX  BASE SCOI a or from  MODIFIER	SCORE 1  RE 3  3-1
Step 6: Using the E shoreline by cross-term of the shoreline b	Fetch Length Mod referencing the S  Fetch Length Modified Score  Bank Composition Type  Base Score  he Bank Composition Type  Measured Slope Bedrock Hard Till Loose Till Sands, Silts Organics Loose Till Sands, Silts Organics Loose Till Sands Sources Invertice Howes and Kert H	Score  O 1 2 3 4 5 6 7 8 9 10 11  In Base Score Bedrock or Armoured (manmade and boulder shores) O Based on tyg sition Base Si lope of the b  Shallow Shallower than 5 degrees O -1 -1 0 O ased on slop introry Comm ik. 1997. Ter sition Modifies tep 7) + Modifies TIAL from Mati	Shore Orientation  Shore Orientation  O O O O O O O O O O O O O O O O O O	Steep Steeps Steeps Steeps O O O O O O O O O O O O O O O O O O O	e  2 0 2 4 6 8 10 12 14 16 18 20 22 ss-product reference p Loose Sands, Silts, Topsoil  3 rta pe from av Very Steep Steeper 4 4 4 4 brezone Ma or BC, 2nd I	From Step 5  3 0 3 6 9 112 15 18 221 24 27 30 Granics (marsh, ooze)  appping Systed.	4 0 4 8 12 16 20 24 28 32 36 40 44  Loess (dunes)	5 0 5 10 15 20 20 25 30 35 40 45 50 55 55 55 55 55 55 55 55 55 55 55 55	MATRIX  BASE SCOI  a or from  MODIFIER  MODIFIER  PART B/C S	SCORE 1  3-1  3-CORE 3
Step 6: Using the Eshoreline by cross-teshoreline b	Fetch Length Mod referencing the S  Fetch Length Modified Score  Bank Composition Type  Base Score  he Bank Composition Type  Measured Slope Bedrock Hard Till Loose Till Sands, Silts Organics Loose Till Sands, Silts Organics Loose Till Sands Sources Invertice Howes and Kert H	Score  O 1 2 3 4 5 6 7 8 9 10 11  In Base Score Bedrock or Armoured (manmade and boulder shores) O Based on tyg sition Base Si lope of the b  Shallow Shallower than 5 degrees O -1 -1 0 O ased on slop introry Comm ik. 1997. Ter sition Modifies tep 7) + Modifies TIAL from Mati	Shore Orientation  Shore Orientation  O O O O O O O O O O O O O O O O O O	Steep Steeps Steeps Steeps O O O O O O O O O O O O O O O O O O O	e  2 0 2 4 6 8 10 12 14 16 18 20 22 ss-product reference p Loose Sands, Silts, Topsoil  3 rta pe from av Very Steep Steeper 4 4 4 4 brezone Ma or BC, 2nd I	From Step 5  3 0 3 6 9 112 15 18 221 24 27 30 Granics (marsh, ooze)  appping Systed.	4 0 4 8 12 16 20 24 28 32 36 40 44  Loess (dunes)	5 0 5 10 15 20 20 25 30 35 40 45 50 55 55 55 55 55 55 55 55 55 55 55 55	MATRIX  BASE SCOI  a or from  MODIFIER  MODIFIER  PART B/C S	SCORE 1  3-1  3-1  CONTRACTOR OF THE PROPERTY
Step 6: Using the E shoreline by cross-term of the shoreline b	Fetch Length Mod referencing the S  Fetch Length Modified Score  Bank Composition Type  Base Score  he Bank Composition Type  Measured Slope Bedrock Hard Till Loose Till Sands, Silts Organics Loose Till Sands, Silts Organics Loose Till Sands Sources Invertice Howes and Kert H	Score  O 1 2 3 4 5 6 7 8 9 10 11  In Base Score Bedrock or Armoured (manmade and boulder shores) O Based on tyg sition Base Si lope of the b  Shallow Shallower than 5 degrees O -1 -1 0 O ased on slop introry Comm ik. 1997. Ter sition Modifies tep 7) + Modifies TIAL from Mati	Shore Orientation  Shore Orientation  O O O O O O O O O O O O O O O O O O	Steep Steeps Steeps Steeps O O O O O O O O O O O O O O O O O O O	e  2 0 2 4 6 8 10 12 14 16 18 20 22 ss-product reference p Loose Sands, Silts, Topsoil  3 rta pe from av Very Steep Steeper 4 4 4 4 brezone Ma or BC, 2nd I	From Step 5  3 0 3 6 9 112 15 18 221 24 27 30 Granics (marsh, ooze)  appping Systed.	4 0 4 8 12 16 20 24 28 32 36 40 44  Loess (dunes)	5 0 5 10 15 20 20 25 30 35 40 45 50 55 55 55 55 55 55 55 55 55 55 55 55	MATRIX  BASE SCOI  a or from  MODIFIER  MODIFIER  PART B/C S	SCORE 1  SCORE 3  SCORE 3