JERICHO PROJECT SCENARIO MATRIX - WATER INTAKE							
Phase	**Activity**	**Alternative**	**Receiving Waterbody (s)**	**Env Control Cost**	**Water Quantity Outcome**	**Water Quantity Outcome**	**Water Quality Outcome**
					Positive	**Negative**	**Positive**
Construction	Water intake	Causeway	Carat Lake	Moderate	None	Not significant; water withdrawal up to ~260,000 m^3/year or <1% of Carat Lake annual discharge @ 250 mm r/o	Less sedimentation than buried pipe because less disturbance of lake bottom during construction. Mine rock will be used.
		Buried pipe	Carat Lake	High	None	See 3a	Water circulation not affected - Lake currents not obstructed however water intake draw point will impact circulation the same for both options
Costs	Low	Less than $20,000					
	Medium	$20,000 to $100,000					
	High	More than $100,000					

JERICHO PROJECT SCENARIO MATRIX - WATER INTAKE							
Phase	**Activity**	**Alternative**	**Water Quality Outcome**	**Fish Health Outcome**	**Fish Health Outcome**	**Fish Habitat Outcome**	**Fish Habitat Outcome**
			Negative	**Positive**	**Negative**	**Positive**	**Negative**
Construction	Water intake	Causeway	Zero sedimentation not possible, some construction related sediment; some potential to affect water circulation	None - Causeway forms natural fish screen surrounding intake well.	Sedimentation may affect food production	New habitat created by submerged sides of causeway during operation and by entire causeway at closure.	Temporary loss of fish habitat. Local effect on water circulation
		Buried pipe	Even with silt curtain fine lake bottom sediments will increase sediment in surrounding water temporarily - construction of trench for pipeline will cause heavy sediment loads. Silt curtains limited effectiveness The handling and disposal of lake bottom sediments creates additional environmental issues	None	Sedimentation may affect food production.	No permanent habitat loss	Higher operational risk of submerged pipeline will result in higher likelihood of habitat disturbance during repairs
Costs	Low	Less than $20,000					
	Medium	$20,000 to $100,000					
	High	More than $100,000					

JERICHO PROJECT SCENARIO MATRIX - WATER INTAKE				
Phase	**Activity**	**Alternative**	**Mitigation**	**Conclusion**
Construction	Water intake	Causeway	Improve causeway to create fish habitat. Use of culverts not feasible.	Habitat loss can be fully mitigated; potential for change in local water circulation pattern near causeway. Referred Option
		Buried pipe	Silt curtain during construction	High volume of high TSS water to mitigate or treat on land Requires fish screen and has higher operational and environmental risk during construction and operations
Costs	Low	Less than $20,000		
	Medium	$20,000 to $100,000		
	High	More than $100,000		