

SUMMARY OF ALTERNATIVES (FINAL) Great Dam Removal Feasibility and Impact Analysis Exeter River, Exeter, New Hampshire

	Alternative A		Alternative B		Alternative F		Alternative G		Alternative H	
Resource	Existing Condition/No Action*		Dam Removal			Removal	Stabilize	e in Place	Dam Modification	
Construction Costs	N/A		4	\$732,150		\$1,338,630		3,000	\$1,0	16,000
Mitigation Costs	\$550,000		\$512,608		\$912,608		\$565,000		\$795,200	
30-year Operations & Maintenance Costs	N/A		N/A		\$385,170		\$181,894		\$616,724	
Total Direct and Indirect Cost	\$550,000		\$1,244,758		\$2,636,408		\$1,164,894		\$2,427,924	
Achieve Dam Safety?	No No		Yes		Yes		Yes		Yes	
Reduce Flooding?	No		Moderate Benefit		Moderate Benefit		No		Moderate Benefit	
Improve Fish Passage?	No		Major Benefit		No		No		No	
Improve Water Quality?	No		Major Benefit		Moderate Benefit		No		No	
Resource/Issue	Negative Impacts	Positive Impacts			Negative Impacts					
nesource/155ue	Interupts natual sediment	Impoundment slows water,	regative impacts	1 Osicive impaces	regutive impacts	1 Ositive impacts	regulite imputto	1 Contine timpacto		
Unstream Fresion	transport processes	limits erosion	Minor	Minor	Minor	Minor	Negligible	_	Minor	Minor
Upstream Erosion Downstream Sedimentation	Interupts natual sediment	mints erosion	WIIIOI	Willion	TVIIIO	Willion	14cBilBible		14111101	1111101
	· ·		Moderate		Moderate	_	Negligible	_	Minor	_
	transport processes		Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible
River Ice	<u>-</u>	Impoundment slows water,	Megligible	Megligible	Megligible	IVEBIIGIDIE	Negligible	Negligible	Negligible	MeBilBible
Dulders Malle Foundations		limits erosion	Minor	_	Minor		Negligible	_	Negligible	-
Bridges, Walls, Foundations	<u>-</u>	Maintains impoundment for	IVIIIIOI	-	IVIIIOI		Negligible		Negligible	-
Water Intakes Public Wells		withdrawals	Moderate	_	Minor	_	_	Major	-	Major
	<u> </u>	Impounded river provides 11%		-	WIIIOI		_	iviajoi		iviajoi
		•	1		Minor		_		Negligible	_
		more available water	Minor		WIIIOI		. -		Negligible	
Private Wells	No known private dug wells	No known private dug wells	<u>.</u> .	-	-	-	_		-	
		Dam contributes to								
Cultural Resources	<u>-</u>	surrounding historic district	Major	_	Major	· -	Negligible	-	Moderate	<u>-</u>
			·							
	Adversely affects coldwater	Creates flatwater boating								
Recreation	angling opportunities	environment	· Minor	Minor	Minor	Minor	-		-	-
	Dam prevents upstream									
	migration of important fish									
Fisheries	species	Favors warm water species	Negligible	Major	Negligible	Minor	Major	-	Major	-
	Dam limits availability of									
	anadromous fish species as	Favors species preferring	· ·							
Wildlife	food source	pond/lake environment	Minor	Moderate	Minor	Minor	Minor	Minor	Minor	Minor
						,				
	,	Artificial water level creates								
Wetlands	- .	wetlands along river	Moderate	-	Moderate	· •	-	Moderate	Negligible	Moderate
	Creates conditions favoring									
Invasive Species	aquatic invasives	-	Minor	Minor	Minor	Minor	Minor	Minor	Minor	Minor
		High water supports swamp								
Rare Species/Exemplary Natural Communities	1 .	white oak	Moderate	Negligible	Moderate	Negligible	Negligible	Moderate	Moderate	Negligible
	Dam adversely impacts mussel									
Freshwater Mussels	habitat/ conectivity	-	Minor	Major	Minor	Moderate	Moderate	Negligible	Moderate	Negligible
		Falling water at dam scene and								
	Eliminates views of riffle/pool									
Visual/Aesthetics	complexes	picturesque	Moderate	Moderate	Moderate	Moderate	-	-	Moderate	Moderate

Note: The "No Action" alternative is not feasible due to public safety and regulatory considerations. Description of Intensity Levels

Negligible: Impacts would not be detectable, measurable, or observable.

Minor: Impacts would be detectable, but not expected to have an overall effect on the resource.

Moderate: Impacts would be clearly detectable and could have short-term, appreciable effects on the resource.

Major: Long-term or permanent, highly noticeable effects on the resource.