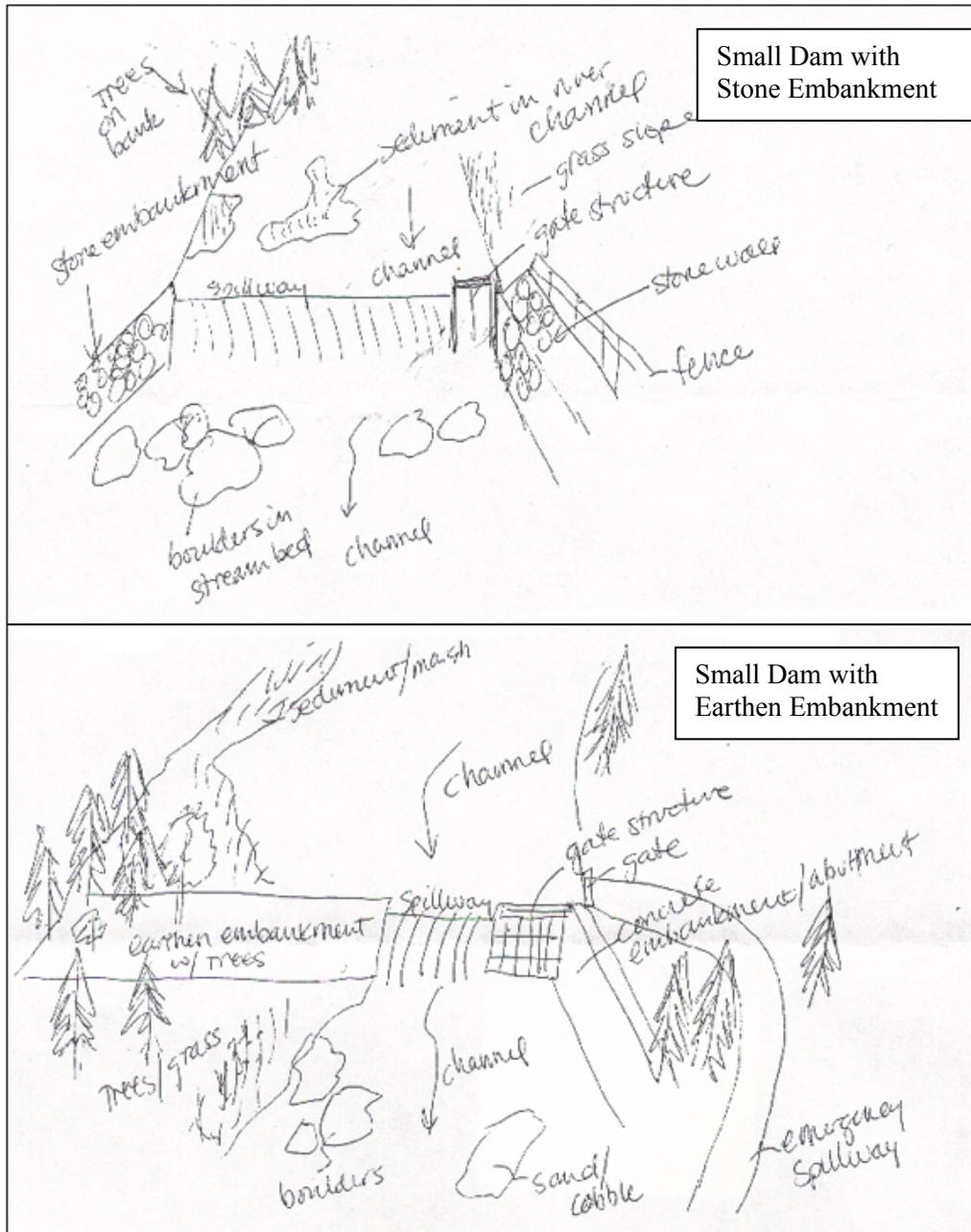


CURRENT USES AND HISTORICAL SIGNIFICANCE									
Current Uses of the Dam	<input type="checkbox"/> private landscape <input type="checkbox"/> hydropower generation <input type="checkbox"/> irrigation <input type="checkbox"/> fire protection <input type="checkbox"/> other: _____		<input type="checkbox"/> water supply <input type="checkbox"/> recreation <input type="checkbox"/> fish & wildlife <input type="checkbox"/> scenic focus <input type="checkbox"/> unknown		Character	<input type="checkbox"/> full pond-riverine <input type="checkbox"/> full pond-lacustrine <input type="checkbox"/> drained through <input type="checkbox"/> low level outlet <input type="checkbox"/> drained by breach			
Impoundment Size	<input type="checkbox"/> approx. length (ft) <input type="checkbox"/> approx. area (acres)		Public Access at the impoundment		yes	no	unknown		
Public Uses at the Impoundment	<input type="checkbox"/> swimming <input type="checkbox"/> picnicking <input type="checkbox"/> fishing <input type="checkbox"/> boating <input type="checkbox"/> scenic focus <input type="checkbox"/> unknown <input type="checkbox"/> fire protection <input type="checkbox"/> other: _____		Evidence of public use (e.g., paths/trash)		yes	no	unknown		
Land Use	UPSTREAM (up to 100 ft from structure)			DOWNSTREAM (up to 100 ft from structure)					
Shoreline - circle all that apply <small>(left/right bank determined facing downstream)</small>	LEFT		RIGHT		LEFT		RIGHT		
	commercial industrial residential agricultural forest		commercial industrial residential agricultural forest		commercial industrial residential agricultural forest		commercial industrial residential agricultural forest		
Indicate if nearby: a. old (>50 yrs) mill buildings/foundations b. remnants of other dam c. existing/former old (>50 yrs) mill pond d. village buildings	a. yes no unknown b. yes no unknown c. yes no unknown d. yes no unknown		a. yes no unknown b. yes no unknown c. yes no unknown d. yes no unknown		a. yes no unknown b. yes no unknown c. yes no unknown d. yes no unknown		a. yes no unknown b. yes no unknown c. yes no unknown d. yes no unknown		
Past use of dam/impoundment:									
GEOMORPHIC DATA									
Bankfull Channel Width (i.e., outside influence of dam)				(ft) curve measured					
Upstream of the dam in the impoundment									
Is there a steep riffle present immediately upstream of impoundment:				yes	no	unknown			
Is there sediment deposition at or near the crest of the dam?				yes	no	unknown			
Is there sediment deposition (looking midway upstream in the impoundment)? <input type="checkbox"/> no sedimentation visible <input type="checkbox"/> < 1/2 the bankfull elevation <input type="checkbox"/> ≥ 1/2 the bankfull elevation									
Wetlands, Left Bank: <input type="checkbox"/> along the margins <input type="checkbox"/> small backwater <input type="checkbox"/> large backwater <input type="checkbox"/> none <input type="checkbox"/> unknown									
Right Bank: <input type="checkbox"/> along the margins <input type="checkbox"/> small backwater <input type="checkbox"/> large backwater <input type="checkbox"/> none <input type="checkbox"/> unknown									
Downstream of the dam									
Is there a bypass downstream of the dam?				no	yes: _____ length (ft)	unknown			
Source of water below dam: <input type="checkbox"/> surface spill <input type="checkbox"/> leakage <input type="checkbox"/> breach <input type="checkbox"/> diversion structure <input type="checkbox"/> low-level outlet									
Downstream bank heights are substantially higher than upstream bank heights:				yes	no				
Is there sediment deposition ≥ 1/2 the bankfull elevation?				yes	no				
Bed and Banks	UPSTREAM		DOWNSTREAM		IMPOUNDMENT				
Dominant bed material at dam Bed Material Codes: 1 – Bedrock 2 – Boulder 3 – Cobble 4 – Gravel 5 – Sand	1 2 3 4 5 unknown bedrock present: yes no unknown		1 2 3 4 5 unknown bedrock present: yes no unknown		1 2 3 4 5 unknown bedrock present: yes no unknown				
Sediment deposit types	none delta side point mid-channel unknown		none delta side point mid-channel unknown		none delta side point mid-channel unknown				
Defined thalweg present? <small>(left/right bank determined facing downstream)</small>	yes / no / unknown		yes / no / unknown		yes / no / unknown				
Bank Erosion: high low none	LEFT		RIGHT		LEFT			RIGHT	
Typical Bank Slope: shallow moderate steep undercut									
Hard Bank Armoring: intact ailing none unknown									
Dominant Riparian Corridor Land Use:									
Dominant Near Bank Vegetation:									
Land Use Codes F – forest S - shrub-sapling A - crop/pasture/hay C - commercial/industrial R - residential B - bare									
Vegetation Codes: C - coniferous D - deciduous S - shrubs-sapling H - herbaceous L - lawn P - pasture B - bare I - invasives									

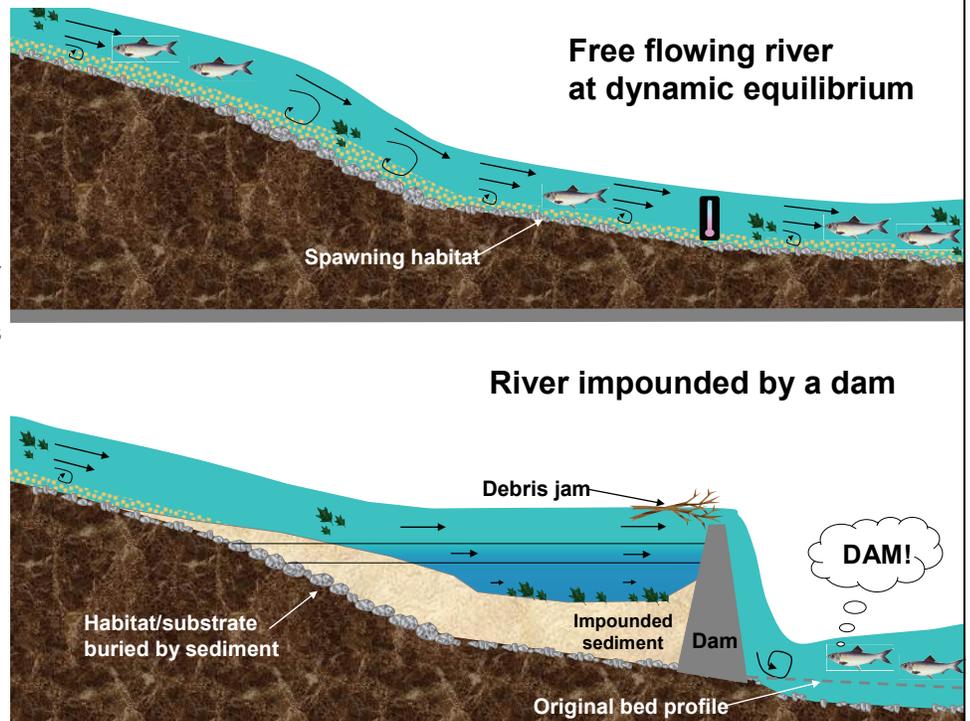
Sketch of a Small Dam and Some of its Associated Operational Features



Drawing Courtesy of the Commonwealth of Massachusetts Riverways Program

How a Dam Affects a River

Building a dam can affect a river in many ways. Fundamentally, the dam is a barrier that interrupts the natural river dynamics. The impoundment that forms behind the dam loses many of its riverine characteristics, impacting species that depend on river habitat for their survival.



Graphic based on original by Laura Wildman, American Rivers

	Free-flowing river	Dammed river
Temperature	Natural temperature regime	Greater surface area of impoundment and surface release often results in higher water temperatures in impoundment and downstream
Dissolved oxygen	Turbulent flow and shallower water depths result in high dissolved oxygen concentration	Loss of turbulent flow may reduce dissolved oxygen concentration; impoundment may stratify, further reducing dissolved oxygen
Habitat	Riverine coldwater habitat	Habitat is more lake-like and often unsuitable for coldwater fish species
Fish movement	Fish and other organisms free to move upstream and downstream, including migratory fish such as Atlantic salmon	Access to habitat blocked or fragmented
Flow regime	Natural flow regime	Modified flow regime
Sediment	Natural transport processes maintained	Trapped in impoundment—natural substrate buried by sediment in impoundment, downstream channel erosion may result to “replace” trapped sediment
Pollutants	Metals and organics are distributed downstream	Metals and organics are concentrated in fine sediments trapped in impoundment
Nutrient transport	Nutrients are transported downstream	Portion of nutrients trapped in impoundment
Woody debris	Woody debris is transported downstream to create habitat	Portion of woody debris trapped in impoundment