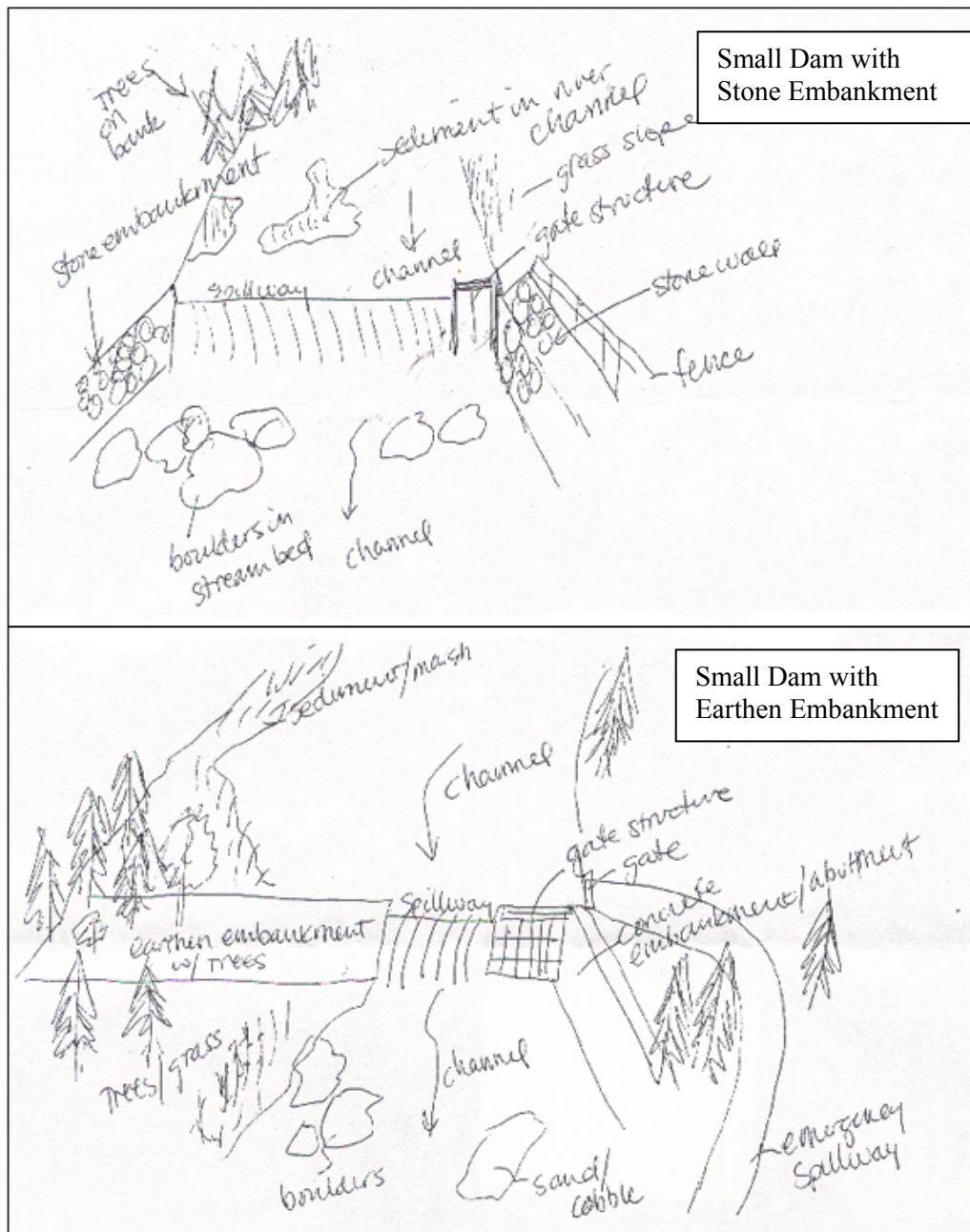


GENERAL STREAM AND DAM INFORMATION																																												
State ID No.			Field Map No.																																									
Dam Name			Assessment Date																																									
Surface Water Name			Construction Date Source (ca. <input type="checkbox"/>)(unknown <input type="checkbox"/>)																																									
Town			Is this dam the original structure?	yes no unknown																																								
Location			Reach ID Number																																									
Observer(s)/ Organization(s)			Phase 1 Project																																									
Dam Owner & Contact Information	name _____	Longitude (E/W)																																										
		Latitude (N/S)																																										
		High Flow Stage		yes no																																								
		Nearest USGS gage																																										
Type (circle one)	private municipality state federal																																											
STRUCTURAL DATA																																												
Dam Height	(ft)	Dam Length (along top of dam, from left to right abutment)		(ft)																																								
Dam Type	earthfill/no spillway earthfill/spillway arch buttress gravity Ambursen inflatable unknown																																											
Structure Material	concrete stonemasonry earth rock fill timber other: _____																																											
Spillway – Material Type/Width	metal concrete timber other drop inlet overflow _____(ft)																																											
Dam Condition: intact/maintained (good) intact/not maintained (poor) partially breached fully breached abutments only If the dam is breached, does it still impound water? yes no unknown Is the dam's outlet(s) operable? yes no unknown Is the dam located at a significant break in valley slope: yes no unknown Is the dam located at a significant change in valley confinement: yes no unknown Is the dam constructed on channel spanning bedrock? yes no unknown Is there evidence of major modifications to the dam: yes no If yes, describe: _____																																												
Associated Operational Structures: Are there any of the following structures, and do they have problems? (Signs of poor condition include: leaks, holes, tree/plant growth, animal activity, cracks, erosion, tire tracks, among others). <table border="1"> <thead> <tr> <th>Structure</th> <th colspan="2">Problems?</th> <th>If yes, describe problems</th> </tr> </thead> <tbody> <tr> <td>___ flash boards (height: _____ ft)</td> <td>yes</td> <td>no</td> <td>unknown _____</td> </tr> <tr> <td>___ intake structure</td> <td>yes</td> <td>no</td> <td>unknown _____</td> </tr> <tr> <td>___ crest gates</td> <td>yes</td> <td>no</td> <td>unknown _____</td> </tr> <tr> <td>___ sluice gates</td> <td>yes</td> <td>no</td> <td>unknown _____</td> </tr> <tr> <td>___ diversion: either (a) canal/penstock, or</td> <td>yes</td> <td>no</td> <td>unknown _____</td> </tr> <tr> <td>___ (b) with no return flows (e.g. water supply)</td> <td>yes</td> <td>no</td> <td>unknown _____</td> </tr> <tr> <td>___ mill building(s)</td> <td>yes</td> <td>no</td> <td>unknown _____</td> </tr> <tr> <td>___ powerhouse</td> <td>yes</td> <td>no</td> <td>unknown _____</td> </tr> <tr> <td>___ other: _____</td> <td>yes</td> <td>no</td> <td>unknown _____</td> </tr> </tbody> </table>					Structure	Problems?		If yes, describe problems	___ flash boards (height: _____ ft)	yes	no	unknown _____	___ intake structure	yes	no	unknown _____	___ crest gates	yes	no	unknown _____	___ sluice gates	yes	no	unknown _____	___ diversion: either (a) canal/penstock, or	yes	no	unknown _____	___ (b) with no return flows (e.g. water supply)	yes	no	unknown _____	___ mill building(s)	yes	no	unknown _____	___ powerhouse	yes	no	unknown _____	___ other: _____	yes	no	unknown _____
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___ powerhouse	yes	no	unknown _____																																									
___ other: _____	yes	no	unknown _____																																									
FISH PASSAGE																																												
Fish Passability a. To what extent does the dam span channel? b. Spillway gates present? c. Depth of plunge pool below dam d. Jump height: Approximate difference in water surface above and below dam	a. full partial open channel (abutment only) b. at surface at bottom no unknown c. _____(0.0 ft) d. _____(0.0 ft) estimated measured		Fishway Type ___ pool and weir ___ trap & haul ___ notch ___ rock-ramp ___ vertical slot ___ fish lift ___ Denil baffle ___ steep pass ___ other: _____ ___ no fishway present ___ unknown																																									

CURRENT USES AND HISTORICAL SIGNIFICANCE						
Current Uses of the Dam	<input type="checkbox"/> private landscape <input type="checkbox"/> water supply <input type="checkbox"/> hydropower generation <input type="checkbox"/> recreation <input type="checkbox"/> irrigation <input type="checkbox"/> fish & wildlife <input type="checkbox"/> fire protection <input type="checkbox"/> scenic focus <input type="checkbox"/> other: _____ <input type="checkbox"/> unknown		Character	<input type="checkbox"/> full pond-riverine <input type="checkbox"/> full pond-lacustrine <input type="checkbox"/> drained through 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 (left/right bank determined facing downstream)	LEFT		RIGHT		LEFT	
	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	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)?			_____ no sedimentation visible _____ < 1/2 the bankfull elevation _____ ≥ 1/2 the bankfull elevation			
Wetlands, Left Bank: _____ along the margins _____ small backwater _____ large backwater _____ none _____ unknown						
Right Bank: _____ along the margins _____ small backwater _____ large backwater _____ none _____ unknown						
Downstream of the dam						
Is there a bypass downstream of the dam?			no	yes: _____ length (ft)	unknown	
Source of water below dam: _____ surface spill _____ leakage _____ breach _____ diversion structure _____ 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	1 2 3 4 5 unknown		1 2 3 4 5 unknown		1 2 3 4 5 unknown	
Bed Material Codes: 1 – Bedrock 2 – Boulder 3 – Cobble 4 – Gravel 5 – Sand	bedrock present: yes no unknown		bedrock present: yes no 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?	yes / no / unknown		yes / no / unknown		yes / no / unknown	
(left/right bank determined facing downstream)	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT
Bank Erosion: high low none						
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						

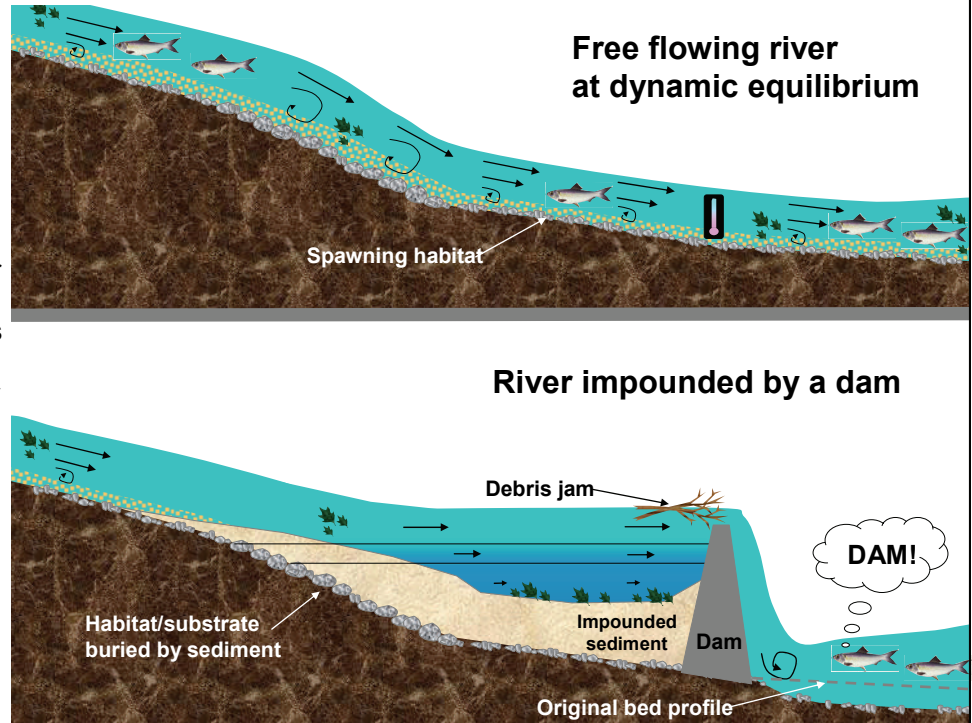
Sketch of a Small Dam and Some of its Associated Operational Features



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