Figure AQ 6-1. Fish Passage Objectives, Related Study Elements, and Reports.

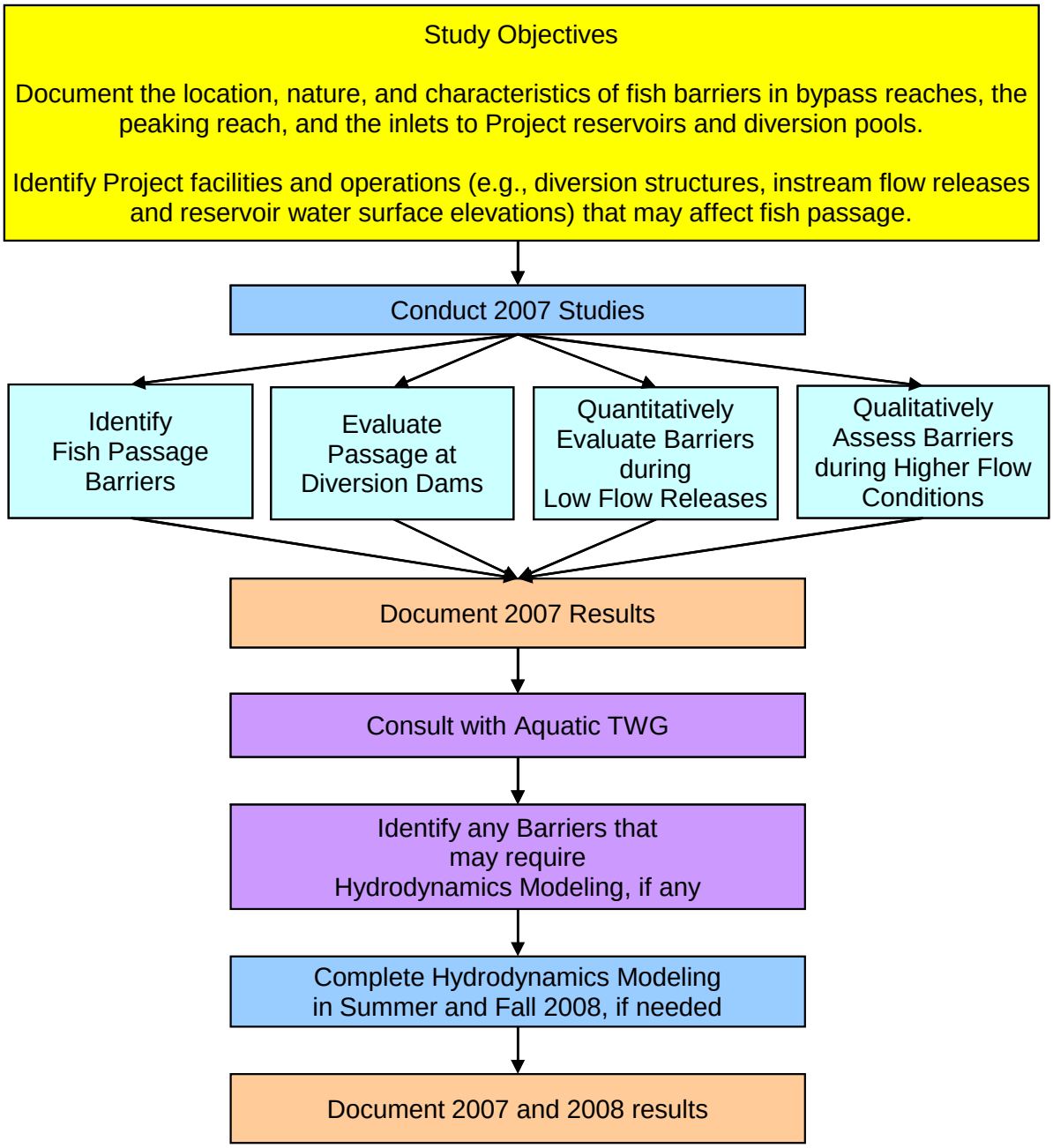
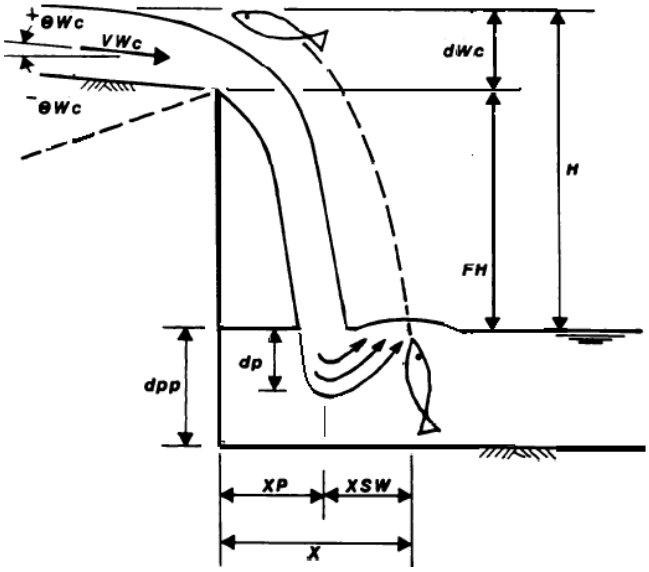
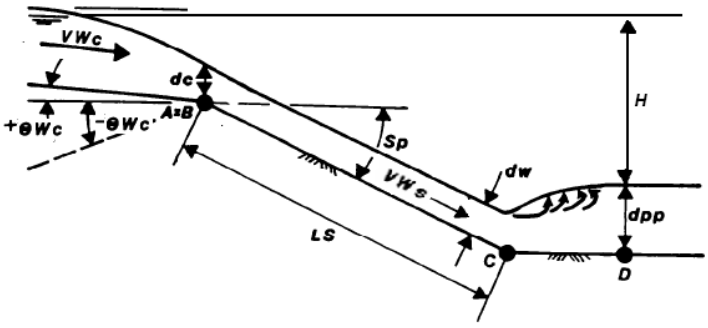


Figure AQ 6-2. Summary of Parameters Measured at Each Potential Barrier during 2007 Field Visits.

Fish Passage Parameters Measured (Abbreviations Shown on Schematics[1] Below)			
Falls	**Chutes**	**Cascades**	**Critical Riffles**
Width of channel/water at top of crest	Width of water at crest and in chute	Also measure the following for each chute/ fall	Width of riffle
Water depth at crest (dWc)	Water depth at crest (dWc)	Resting pool width, length, and depth if resting pools are present.	Depth across riffle
Water velocity at crest (VWc)	Water velocity at crest (VWc)	Air entrainment %	Velocity across riffle
Angle of water at crest (± θWc)	Angle of water at crest (± θWc)	Turbulence (passable or not)	
Fall height (FH)	Chute height (H)		
Depth of plunge pool (dpp)	Depth of water in chute (dW)		
Depth of plunging water (dp)	Velocity of water in chute (VWs)		
Distance from crest to plunge (Xp)	Length of chute slope (LS)		
Distance from plunge to standing wave (XSW)	Slope of chute passage area (Sp)		
	Depth of plunge pool (dpp)		



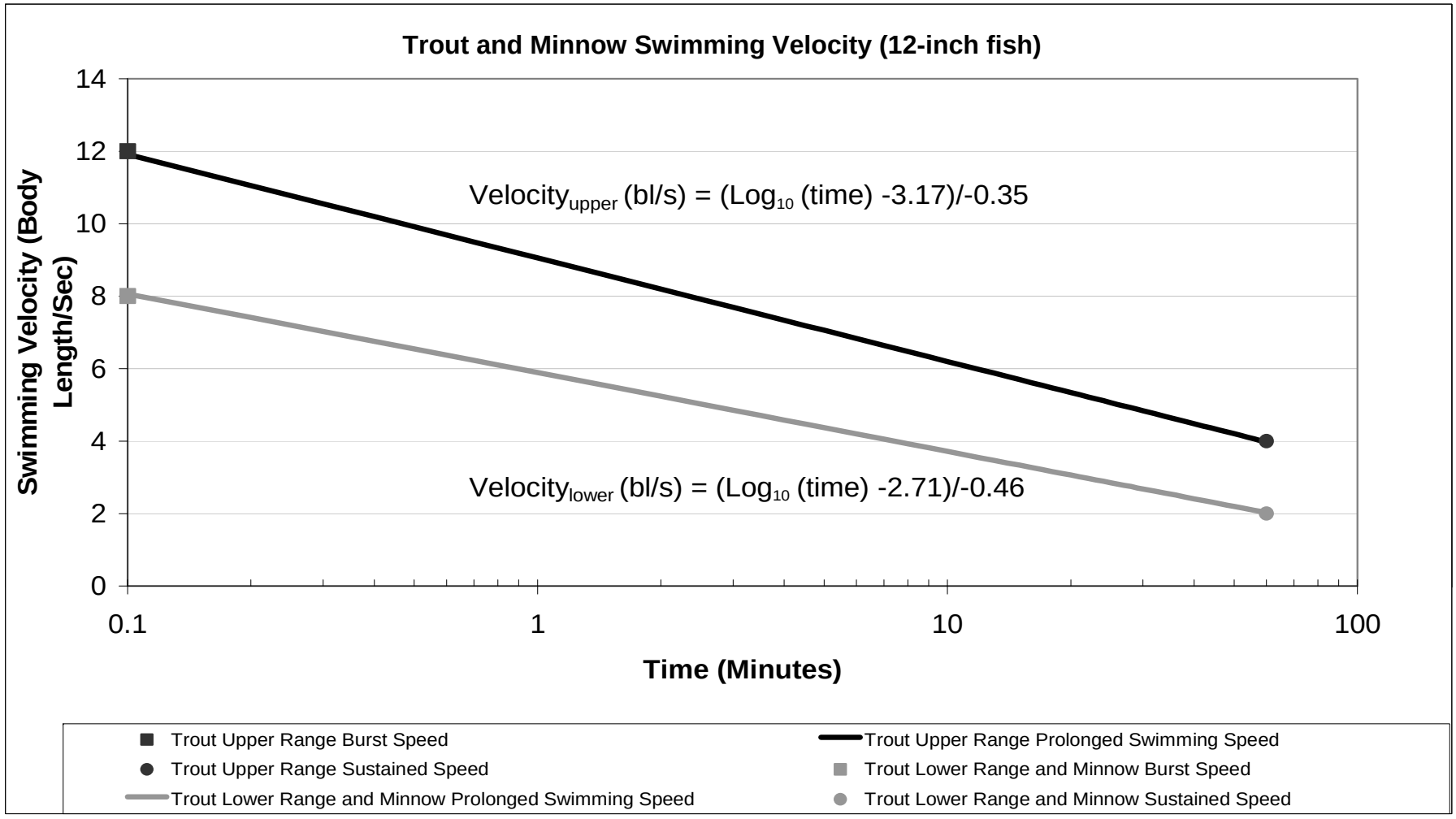
Fall Measurements



Chute Measurements

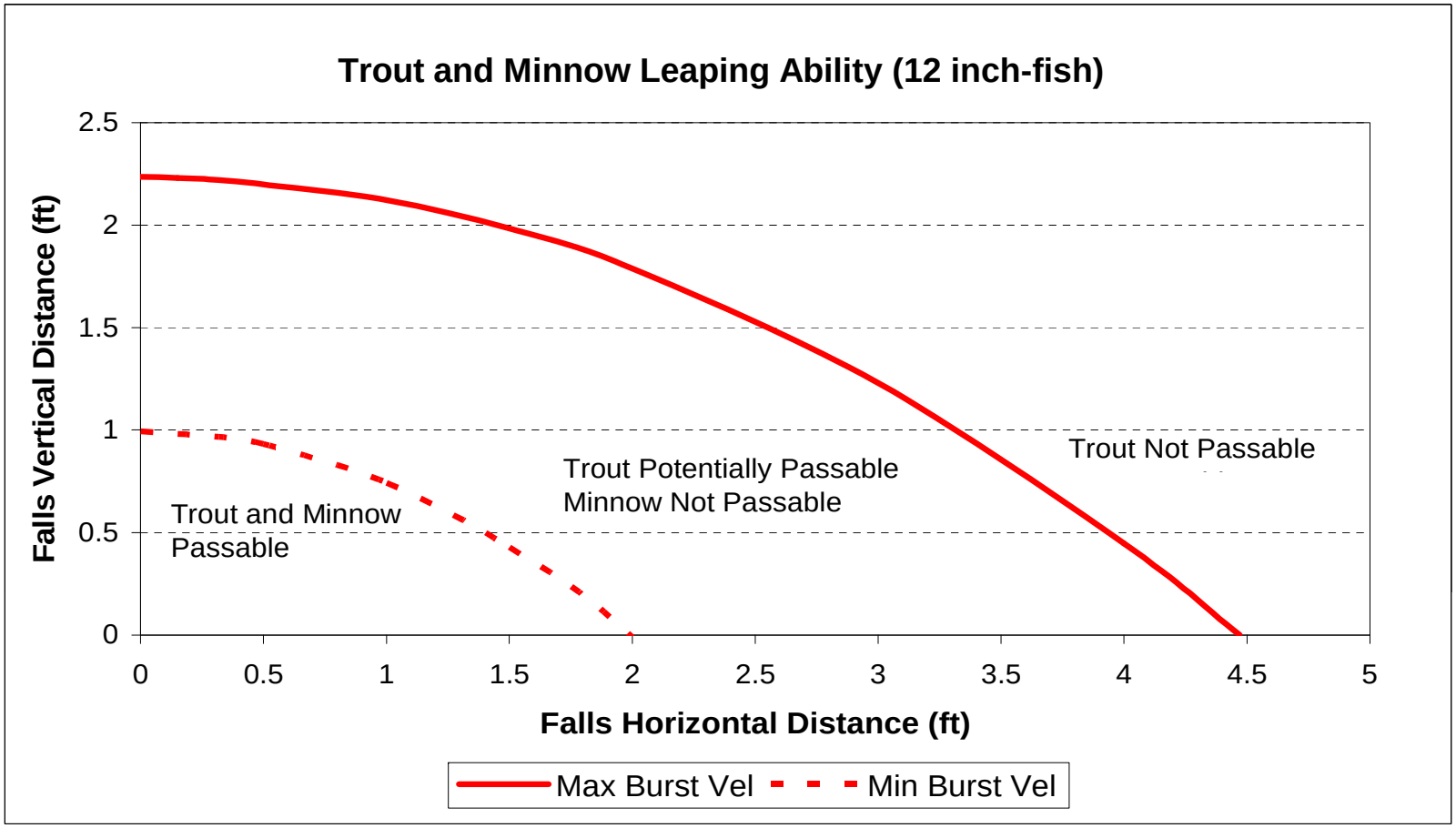
[1]Powers, P. D. and J. F. Orsborn. 1985. Analysis of Barriers to Upstream Migration: An Investigation of the Physical and Biological Conditions Affecting Fish Passage Success at Culverts and Waterfalls. BPA Report No. DOE/BP-36523-1.

Figure AQ 6-3. Trout and Minnow Swimming Speed Versus Time (12-inch fish).[1]



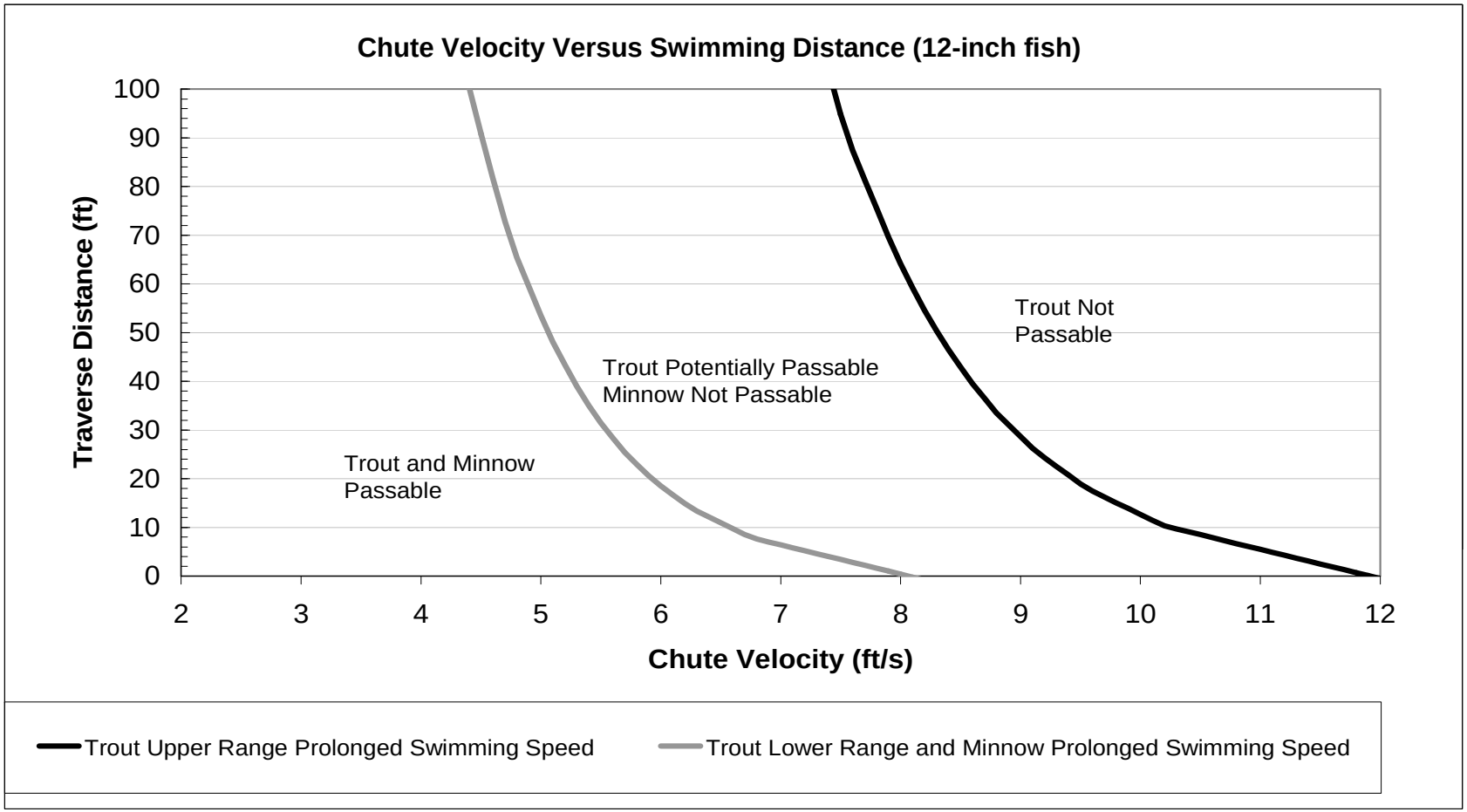
[1]See Apppendix B for calculation details.

Figure AQ 6-4. Trout and Minnow Vertical and Horizontal Leaping Ability (12-inch fish).[1]



[1]See Apppendix B for calculation details.

Figure AQ 6-5. Chute Water Velocity Versus Swimming Distance (12-inch fish).[1]



[1]See Apppendix B for calculation details.