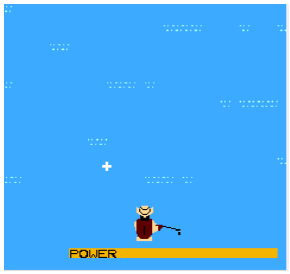
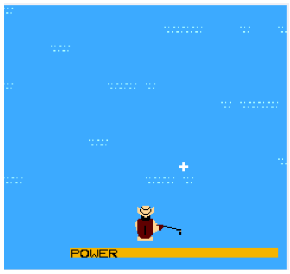
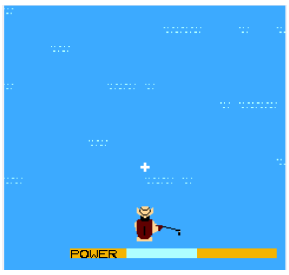
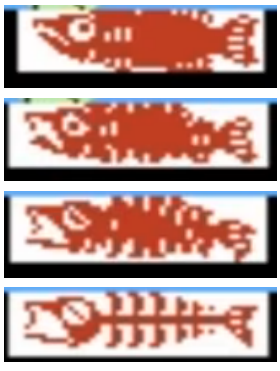
Technical Design Document: Black Bass Fishing

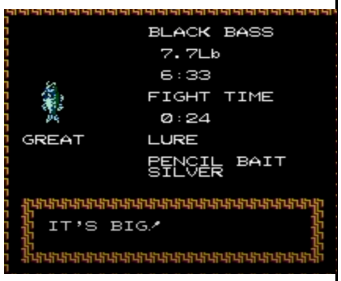
(AKA: Rules for BBF NES Programmers)

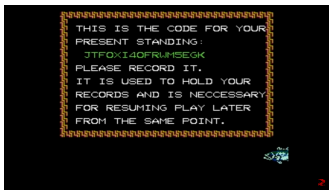
Mechanic	Rules/Descriptions	Images	Extra Info
Aiming	• Player turns in a roughly 30 degree (15 degrees to the right or left) arc from spawn. • Player has 16 inputs between the max left and right distance they can turn • Player must manually input each increment of their turn • Aiming is indicated by a + reticle	 	• We could modify some elements to increase useability but we should run any fundamental changes by Project Lead
Casting	• Player starts casting by pressing **A** (**Z** on keyboard) • Cast strength is indicated by a blue bar that oscillates between max and min strength. • Player must press **A** again to cast the line when the bar is at a desired level		• Bar takes about **1.5 seconds to fill** • Player **CAN** cast lure out of bounds/off screen, resulting in a lost lure and a stage reset • When casting from the center of the screen there's a slight chance for the line to **drift to the left or right by about 3 degrees.** This might be to simulate wind

Reeling	• Player slowly reels in the line by pressing **Left** and **Right** on keyboard • Left and **Right** inputs no longer require multiple button presses in this phase (**player can press and hold either input**) • Player are no longer limited to the 30 degree casting limit and can move the line the full width of the screen • Player can press and hold **A** with no other directional input to quickly reel in the line • There's a sound effect when the player **inputs Left** or **right** with the lure and a different audio que when they quickly reel in the line • Quickly reeling will drag the lure to the center of the screen. • It takes about **8 seconds to reel** from the top edge of the screen to the bottom		• Exact rate at which the player reels in their line appears to be **5 pixels a second for a normal reel and about 10-15 for a quick reel** • Not selecting a cast strength resets the bar and requires another **A** input to cast again
Lure	• **Different lures affect how the line sinks** • The depth of the line is indicated in feet (displayed as "ft") in on the power bar • **The lure becomes a silhouette once it sinks below 6 feet** • Lure can sink to the max depth of the area (usually between 9 and 10 ft) • Moving the line left and right makes it sink faster • **Idling** causes the lure to rise		• **Lure have their own unique sprites and are motivators of progression** • **Players can only bring a few before a fishing run, so they had to be careful** • Neither the basic bait (pencil bait) nor the frog bait sink • Shallow runner is the only lure I could find that sunk • The lure used appears above the power bar

Hooking	• **Occasionally when you cast, a fish silhouette will appear and swim towards your lure** • The fish moves slightly faster than the rate at which the screen scrolls when you're slowly reeling in your bait • The player can repeatedly input a direction and to wiggle the line closer to the fish • Fish spawning seems pretty rare but the player can check the data of a given spot to see if it's good for fishing		• **Optimal strategy for hooking a fish seems to be inputting Left and Right in short bursts**. This slows the vertical reel rate to a crawl while still keeping it horizontally mobile, as a fish loses interest in a static lure • **Hooking is part of a the core trial and error loop since the player can only check the data of a spot after one fishing attempt** • **Besides this trial and error there is no other indicator of fish in a location**
Fish	• The game suggests fish will spawn in areas by labeling areas "good" or "bad" for bass - with spawn rate depending on the area • Fish will almost always spawn at the edges or top of the screen and inch towards the bait. • **Fish have a certain radius for detecting bait and leave once the bait exits this radius or stops moving.**		• **For ease of use, we'll be cheating for this by making sure a fish spawns every 3 or so casts (33%)**
Time limit	• There's a limit on the time you have for fishing, **approx 4 real world hours** • Once it passes, the player either advances to the next stage or ends the game		• We should cut this mechanic since it doesn't really make sense for the museum
Stamina	• **Once hooked, the fish will begin to fight against the line and a stamina indicator in the shape of the fish will appear** • The bar will change as the fish fights against the line, showing the fish becoming weaker • **The fish sprite also changes as it fights. Tired fish will turn sideways and float closer to the surface**		• There are 4 stages of fish stamina, each shown to the left

Line strength	• **The strength of the line is also a factor when reeling in a fish.**
	  ○ Stronger lines make it easier to catch and tire out bigger fish.
	  ○ Weaker lines put a gate on the type of fish you can catch
	• **When reeling, and audio cue will play if the line is close to breaking**
			• Breaking a line results in a lost lure

Text boxes	• The game also has some text boxes and prompts to show various game states	  	• **Text box appears for catching a fish and loading into a stage** • **There's also a fishing inventory that stores all the fish they caught in one 'run'** • **"Good Luck" loaded every time you started a fishing run** • **See google drive for more detailed images**
Fish stats	• **Tracks weight, length, fight time, and lure used**		

Codes	• These tracked player progress and were displayed when you won • This is a neat relic of an era when save states were harder		• These don't seem necessary for the museum but it would be fun to include them as easter eggs