



# **BARTON SPRINGS POOL: Upper Dam Modifications - Gates and Gravel Catcher**

**David Johns, P.G., Program Manager/Geologist, Watershed  
Protection**

**Joint Parks Board and Environmental Commission**

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# Background

- 4 portals (openings) in upstream dam
- Closed in 1970's during bypass construction due to increasing poor water quality in creek following storm events
- Creek flows greater than 500 cfs floods BSP
- Gravel catcher in creek 200 ft upstream of BSP



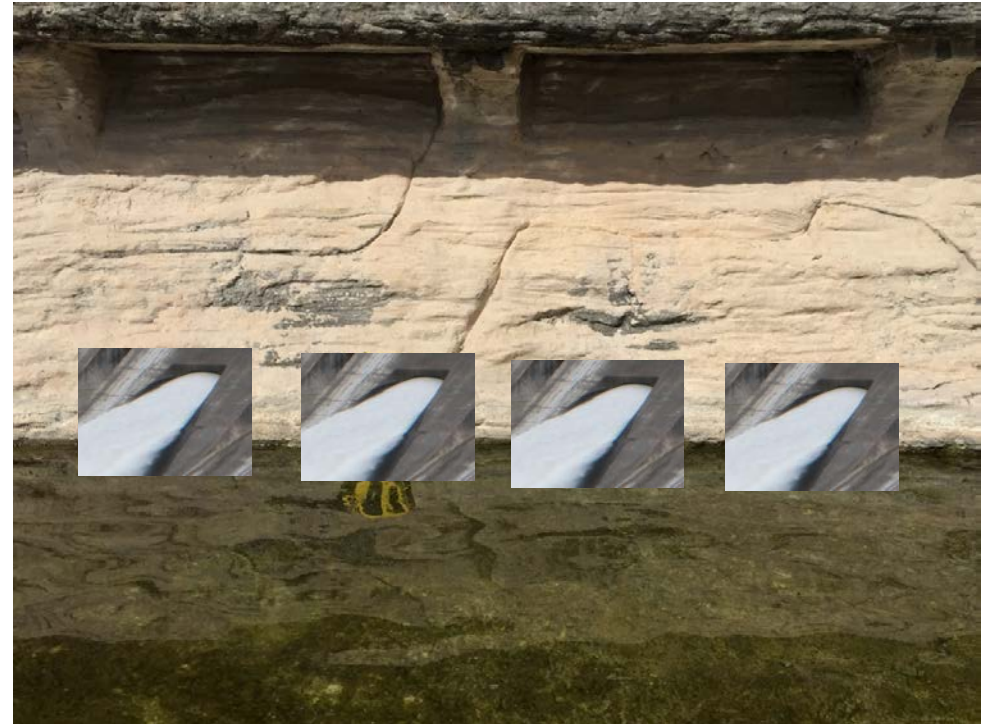


# Proposal

Re-open one or more portals in upstream dam

Add gates to portals to regulate timing and volume of creek flow entering pool

Remove upstream “gravel” catcher





# Reasoning

Barton Springs Pool is hydraulically and ecologically isolated from its surface watershed except during floods and pool drawdowns

BSP Master Plan – flow regime improvements

Significant upstream creek flow 25-30% of time (1998-2017)

- **Longest 213 days (mid-October to mid-May)**
- **About 20 long flow events in swim season**
- **9 flow events greater than 90 days**

Gravel catcher doesn't capture gravel and is causing erosion on north bank of the creek



# Portal Advantages – Water Quality

Creates more natural flow regime in pool (BSP Master Plan, Habitat Conservation Plan)

Creek flow into pool can aid post-flood cleaning by helping transport sediment and debris out of pool

Inflow of creek water will allow faster turn over in pool following storm events

- **Creek water quality improves quicker than springs**





# Portal Disadvantages – Water Quality

**Another detail to attend to at the pool, especially during flood preparation**

**Open gates may create fast currents in upper area of shallow end of the pool**

**Gates could be damaged during flood event and not close**



# Portal Advantages - Ecological

Improves connection of pool with creek

- **Plants**
- **Fishes**
- **Other organisms including salamanders**

May improve salamander prey

May reduce fine sediment deposition in some habitat areas

May reduce salamander stranding as pool is drawn down



# Portal Disadvantages - Ecological

**May introduce invasive species to pool (zebra mussels, others)**

**May introduce more fish predators for salamanders**

**Creek current could encourage nuisance algae growth in current in shallow end**



# Gravel Catcher

**Doesn't capture gravel**  
**Mainly used as a creek crossing**

**Removal previously proposed in 2014-15**

**Removal opposed by some citizens in Barton Hills**





# Gravel Catcher Proposal

**Remove structure**

**Repair and restore eroding creek bank**



# Gravel Catcher

## Advantages

- **Removes unnecessary infrastructure**
- **Repair and restore creek bank**

## Disadvantages

- **Removes commonly used path across creek**