

# Memorandum

To : Petaluma River Survey Files

Date: August 26, 1980

Telephone: ATSS ( )  
( )

From : Department of Fish and Game – Ted Wooster  
Debby Johnston (Lab Assist.)

Subject: Investigation of Water Pollution Incident Caused by Hunt & Behrene Grain and Feed Store, Loss of 6,200 lbs. (7,000 gallons) of molasses into Petaluma River, Petaluma (30 Lakeville Road, Petaluma)

On August 18, 1980 Debby Johnston and myself were asked by Warden Tom Kasnick to check on the condition of the fish population in the Petaluma River where it crosses Lakeville Road. We arrived on scene at 1500 hours. The tide was about 4/5 in and we found the shoreline lined with stressed yellowfin gobies. Many of them were lying out of the water on the mudflats but we found only two that were dead. In the water Mississippi silversides and gobies were seen trying to get oxygen at the air-water interface. Debby took two oxygen samples. Both indicated 0ppm of oxygen in the water.

On August 19, 1980, Debby Johnston and myself returned to the Petaluma River at 1300 hours. We picked up and/or weighed the following dead fish:

Under the Lakeville Road bridge on the Hunt & Behrene side:

- 201 gobies<sup>1</sup>
- 6 Mississippi silverside
- 107 bay shrimp
- several Hemigrapsus crabs

Total area examined was 45' by 15' = 675 sq. ft.

<sup>1</sup> Species list - fish

yellowfin gobie	<u>Acanthogobius flauimanus</u>
Mississippi silverside	<u>Menidia audens</u>
threadfin shad	<u>Dorosoma petenense</u>
striped bass	<u>Roccus saxtilis</u>
carp	
coast range sculpin	<u>Cottus aleuticus</u>
crab	<u>Hemigrapsus oregonensis</u>
shrimp	<u>Palemon macrodactylus</u>

Under the Lakeville Road bridge on the other side:

102 gobies

2 striped bass 7" (157.7mm) and 2.5" (62mm)

numerous bay shrimp

numerous crabs

On mudflat just upstream from the RR bridge on the side opposite the feed store we picked up and/or weighed the following:

360 gobies (105' x 4' = 420 sq. ft. area)

457 gobies

817 total

4 shrimp (2' x 2' = 4 sq. ft. area)

We then took the canoe from the RR bridge upstream to the confluence of Petaluma River and Lynch Creek. We counted 800 gobies, 2 striped bass (7" and 2.5") and 2 threadfin shad (3" and 3") dead on one side of the river. Several large dead carp were noted but they had nothing to do with this pollution incident based on their advanced decomposition.

On the other side of the river we counted 797 gobies, and 12 carp ( $\pm$  8").

Water temperature at 1400 hours was 25° C.

The following # of fish were weighed:

201 gobies

6 Mississippi silversides

102 gobies

2 striped bass

360 gobies

457 gobies

100 gobies (I picked up at random)

1228 Total

1228 fish weighed 25 lbs

800 gobies

797 gobies

12 carp

2 striped bass

2 threadfin shad

1613 fish

1228 : 25 = 1613 : X

1228 x = 40325

x = 33 lbs.

Total pounds of fish lost : 25 lbs + 33 lbs = 58

Total fish lost that were counted : 2841

August 22, 1980 Debby Johnston returned to Petaluma River at Lakeside Highway Bridge at 0730. The river was black throughout the water column and a white sulfide layer was present at the water surface. There was a strong odor of H<sub>2</sub>S. The tide was coming in and DO was 0.6ppm. A few dead gobies were observed on the banks under the bridge. These were probably washed from other areas. A fairly fresh dead striped bass, approximately 10 inches, was seen floating up the river. With the tide at high flood, a shallow layer of new water was present over the black denser layer. The DO was 1.4ppm on this layer. M. Hosain Kazemi, from CRWQCB, and I walked downriver to the "D" street bridge. The river in this area was a normal color but dead bogies and 2 striped bass were observed on the shoreline. The river color at the Washington Street bridge was a brown-black color.

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*Fish Kill  
site*

