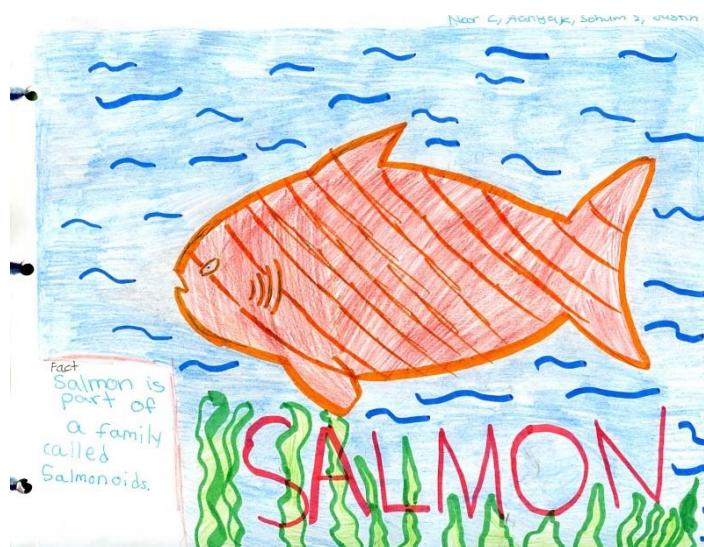


# How did the Non-Native Fish arrive in Alameda County? (A scientific mystery)- Final Report Math Science Nucleus (2015-16) \$5000.00

The Math Science Nucleus received \$5000.00 grant from Alameda County Fish and Game to complete online animated version of "A Fish in Stone" and to complete 8 free field trips for Alameda County schools at our Tule Ponds at Tyson Lagoon facility. We completed these field trips in fall of 2016. We incorporated the animated story in our 5<sup>th</sup> grade lessons so all of the 5<sup>th</sup> grade field trips we give will have the benefit of these new lessons. We provide over 110 field trips per year with about 30 of them for 5<sup>th</sup> grade.

Teachers commented that the field trip has the added benefit of understanding chemistry of water and how fish can be impacted. The lesson is geared toward 5<sup>th</sup> grade as this is part of their Next Generation Science Standards. The focus of the presentation will educate students and teachers on the fish and wildlife of Alameda County. This project meets the requirements of Section 13102 (a) for scientific information on fish and wildlife in Alameda County.



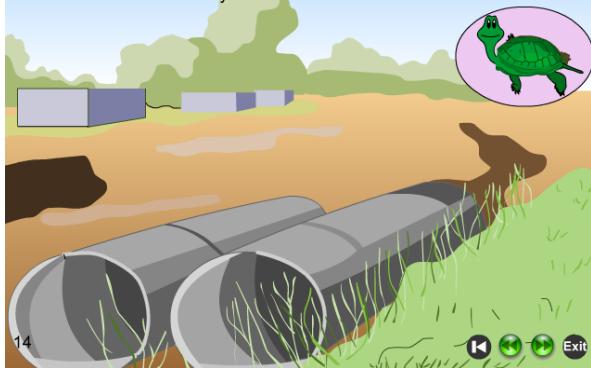
This project benefits fish and wildlife education in Alameda County by instructing teachers on the importance of fish and other organisms to the food chain, whether they are native or non-natives. The field trip itself shows students a real

life restoration project that involves not only fish but all wildlife. It also has a generational affect, that teachers will be able to use the materials year after year. Since we offer free field trips to Tule Ponds, many of the teachers can have the same opportunity and then use the materials to continually use in their classes.



To see the electronic book:  
[https://msnucleus.org/membership/storybooks/fish\\_in\\_stone.html](https://msnucleus.org/membership/storybooks/fish_in_stone.html)

"Humans thought by creating ponds the native fish would come back. But the habitat was not friendly anymore to the fish that lived here for hundreds of thousands of years. Sometimes the pipes would bring pollution into the ponds and fish would be affected by the chemicals"

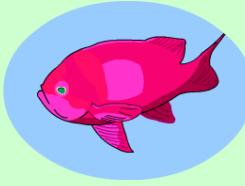


# THE END

funding provided by

Alameda County  
Sheriff's Department

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## Final Project Budget

Item	Request	In Kind
1. Animation of "A Fish in Stone" storybook to flash, so it can be easily downloaded and show key aspects, will be put on our website and correlated to an appropriate lesson plan and associated curriculum (based on science standard)	\$2500.00 (artist and animator)	Curriculum Writing \$1000.00
2. Provide free classes on fish at Tule Ponds at Tyson Lagoon to schools (can offer throughout Alameda County) (\$300 per 2 hour class) 8 classes (funds include advertisement, scheduling) (because of curriculum correlation with NGSS these classes would be for 5 <sup>th</sup> grade, chemistry units)	\$2500.00	No cost of building (1500.00)
<b>Total</b>	<b>\$5,000</b>	<b>\$2500.00</b>