

**San Diego Unified Port District- Environmental Services
CVESD Coastal Education Program Located at the Chula Vista Nature
Center**

Progress Report: June 2010

Sent to: Eileen Maher [emaher@portofsandiego.org] on June 24, 2010

Work Completed to Date:

From January- June 2010 the Port's Environmental Program Funding made it possible for 27 classes totaling ~540 students from seven different CVESD schools to take part in a Coastal Education Program at the Chula Vista Nature Center. From March –June eighteen classes' transportation have been funded by the Port's Environmental Program money; four kindergarten classes, one first grade class, five second grade classes and six third grade classes totaling ~360 students. The kindergartners participated in the "Crawling Crabs" program where they got to learn about the parts, adaptations, and life cycle of crabs and other crustaceans. They also got to touch some Yellow Shore Crabs and a crayfish, which they absolutely loved! (See Photos) The first graders participated in the "Arthropods All Around" program where they learned about the parts, adaptations and life cycles of mostly insects and spiders. They were able to catch a variety of insects in bug boxes to examine more closely. They also studied some insects with microscopes to see their compound eyes, hairy bodies and detailed markings. The second graders studied the adaptations of birds, focusing on their beaks and feet. They used binoculars to see local refuge birds up close and examine their beaks and their feet. They recorded what kinds of birds they saw and noted how the adaptations matched the environment. (See photos)

Some of the third graders did the "Crustacean Lab" where they learned similar information to what is taught in the "Crawling Crabs" class. They also got to go down to the beach to lift up rocks and find crabs in their habitat. They also were able to see many birds that have adaptations to eat the crabs along the shore. They enjoyed touching crabs and crayfish as they saw and touched their different parts. (See photos) Other third grade classes learned about the Kumeyaay, the Native Americans that used to live part of the year along the SD Bay. The students became archeologists and dug in specially created middens (trash piles) to find evidence from the Kumeyaay. They also saw the real shell midden located on the refuge. All students also learned about the local watershed and how their actions can directly affect the animals living along and in the bay. They get to have a tour of the Nature Center aquariums and outside cages so they get to see a variety of the local wildlife up close and hopefully gain respect for these magnificent animals. Another favorite activity is the touching of the sharks and stingrays in the "Shark and Ray Experience". Many students are surprised to find how soft a stingray feels and beg to stay near the touch tank longer!

When the flier stating that teachers could get free transportation to the Nature Center for their classes was sent out mid-January, I was overwhelmed with requests for field trips. I still had spots available months after the regular

registration flier was sent out, but in just a couple of hours after the free transportation was offered I was completely booked! I even had a class signed up to come on the last day of school. This was proof for me that the cost of transportation truly is the major obstacle preventing classes from visiting the Nature Center.

I had a waiting list of 35 teachers after becoming completely booked. I was able to offer trips to some people on the waiting list due to cancellations, but teachers kept calling throughout the remainder of the year asking if I had spaces available. I still ended up with 35 teachers representing almost 100 classes from 24 different schools on my waiting list at the end of the school year! I am hoping that I can accommodate most if not all of them in the upcoming 2010-2011 school year with help from the Port's funding. Seven of the schools on the waiting list were from Title I schools and many of the teachers on the waiting list had never brought their classes for a trip to the Nature Center before. I was sad not to be able to accommodate everyone. I will be creating a very clear list of requirements for Port Funding for the next three years in order to keep it fair, focus on bringing new classes into the Nature Center and maximize the number of students supported by the transportation funding.

This 2009-2010 school year I was able to have the privilege of teaching ~4,800 students from 211 classes, in 34 different schools. There were classes from five more of the District's schools on my waiting list, so of the 44 schools in the CVESD, 34 schools had at least one class visit the Nature Center, 5 more schools had classes on the waiting list, and one of the schools has their own special partnership with the Nature Center. Therefore there are only four schools that the Coastal Education Program's at the Nature Center did not reach this year. It is my goal to ensure that these four schools and the five schools on the waiting list send at least one class to the Nature Center next year. I will be using the Port funding to help me achieve this goal.

A press release was released in the middle of May summarizing the benefits of the Port Grants and the Whale Tail Grant for the Coastal Education Programs at the Chula Vista Nature Center. (Please see included press release) The Union Tribune posted an article in response to the press release on May 29th, 2010. (<http://www.signonsandiego.com/news/2010/may/29/skate-park-project-rolls-despite-rejection-bids/> Please see included article below) Another press release is scheduled to be sent out with a final summary of the Grants awarded to the Coastal Education Programs and their benefits at the end of June 2010. There will also be an article printed in the July Issue of the "Nature News" magazine that goes out to the 1000+ members of the Nature Center that also describes the funding provided by the Port.

How effective the project is at benefiting the Bay:

When the students visit the Nature Center they are not only taught about their standards-based curriculum, they are also taught about the importance of protecting their local coastal environment. We are looking to motivate the students to care about the animals living nearby and empower them to really make a change in their own lives to ensure that the animals are safe. During one of the 3rd grade classes that came to learn about crustaceans, one girl was moved to do just that! Part of the program is to walk down to the beach to find crabs hiding under rocks and learn about storm drain pollution. There was some trash on the beach and we talked about where the trash came from. On our way back a little girl called out to me saying, "I am inspired!" I asked her how so, and she said, "I have a lot of dirty people that put trash in the street in my neighborhood and I am going to get a huge trash bag and go clean up so it looks better." I told her I was very proud of her for thinking of this great way to help out her environment and reminded her how many animals she would be protecting by cleaning up the trash too. I went home that day with a huge smile on my face knowing that my program had truly, concretely inspired a student to make a change in their life for the better.

One of the ways of evaluating the success of this program and how effective it is at benefiting the bay is to record how many students return with their families with their free pass. For the past 23 years the free pass has included 1 adult and one student to return to the NC on another day. When the Nature Center transitioned from being a city entity into a fully Non-Profit organization, it was decided that the free pass should only include 1 free student. The economic downturn during this time plus the change to just 1 free student greatly reduced the amount of students returning with their families. This evaluation technique was no longer reliable as it was. Previously the NC was getting about 10 free passes/month, but in about seven months they had only received 25 free passes.

In early April it was decided that the free pass could again include 1 adult and 1 student. The pass was re-formatted to be clearer and was sent out to every student that had previously attended the entire year. This free pass had the Port's logo and was sent out to over 4,000 students on April 16th. It was then also handed out to every remaining student that attended through June 8th. From April 16th – May 31st 55 free passes have been collected from the Coastal Education Program and 5 of these people brought more than just the one free adult with them. The tally for free passes has not yet been done for June. This summer we anticipate getting many more of the passes as families now have a bit more free time to visit and the weather is ideal for a trip to the Nature Center. We will continue collecting and recording the number of students that are motivated to bring their families back for a visit.

Another evaluation technique used to rate the effectiveness of this program is class testing. Students are given a pre test before coming to the program and then given a posttest after their Coastal Education Program. The ~540 students

that attended the Nature Center with the Port Grant's funding showed an average 23.5% INCREASE in their test scores after their study trip. There is quite a range in the percent increases for the classes with the lowest percent increase being 2% and the highest percent increase being 77%. This range is probably due to many factors. The teachers were all given the same test to give before coming on the trip and then again after coming on the trip. They were instructed to give the tests the exact same way both times. I said that they could adapt the test if they wanted to make sure their students were having appropriate access to the information. This was especially important for the Kindergartners and the 1st grade students since they could not read the multiple-choice questions and answers. Some teachers read the test aloud, others adapted it with pictures, and others just gave it as it was. The test was also only in English, so some of them had to translate all or parts of the test for their students. It is probably due to this variety of situations that some human error occurred, therefore creating such a wide range of values.

Another source of potential error or inconsistency is that three of the questions on the test were about material that is presented by our docents. Every docent has been trained on the material being tested, but how he or she presents it to the kids is not necessarily the same for each docent. Some may emphasize it more or explain it a bit better than others and still other docents may have forgotten to even go over some of the material that the students were then tested. This could directly relate to the success of the students on their tests.

In the following years I will be re-creating the tests to make them more comprehensible to all students and make sure that the questions really do reflect not only the standards they learn, but also the environmental messages they learn as well. I will also be doing a special training with the docents about how to teach the topics that the students will be being tested on. I will emphasize that it is important that they all remember to talk about this information and give them good ways of presenting the material. I will also be giving more clear instructions to the teachers on how exactly they may adapt the test and when they should be giving them. I am thrilled that students showed a significant overall gain in their knowledge after their study trip, but I would like to make the process of data collection more effective.

Costs Incurred to Date:

From Jan- February the Port's Environmental Services Program money was used to pay for eight classes to visit the Nature Center on four different days. The total cost for this was \$900 (4 trips at \$225/trip) and has already been invoiced and paid. Thank you!

From March –June, eighteen more class visits to the Nature Center were made possible with the Port's Environmental Program funding. Four Kindergarten classes, one first grade class, five second grade classes and six third grade classes totaling ~360 students all participated in a Coastal Education Program

thanks to the Port's funding. These eighteen classes came in sixteen separate trips on ten different days. (6 @ \$225= \$1,350, 4 @ \$155= \$620, Total \$1,970) This amount will be included in the invoice that will be sent out this coming March along with all the other trips funded from August 2010- March 2011.

To summarize again, from January- June 2010 the Port's Environmental Program Funding made it possible for 27 classes totaling ~540 students from seven different CVESD schools to take part in a Coastal Education Program at the Chula Vista Nature Center. The total cost for their transportation was \$2,870.

Since the majority of the transportation funding was provided by the California Coastal Commission's Whale Tail single-year grant this year, the full \$7,750 allotted for this year was not completely used. The remaining \$4,880 allotted for this year will be used for the 2012-2013 school year since the funding for the Coastal Education Programs has been extended for a fourth year. This will allow the program to take advantage of the full amount of funding granted to this program and therefore make it possible for the maximum number of students to visit the Nature Center.

Photos



Kindergarten: Crawling Crabs





Kindergarten: Crawling Crabs



2nd Graders Footprints on the Marsh



2nd Graders Footprints on the Marsh





3rd Grade Crustacean Lab





3rd Grade: Crustacean Lab





Touching Stingrays and Sharks

Union Tribune, May 29, 2010

<http://www.signonsandiego.com/news/2010/may/29/skate-park-project-rolls-despite-rejection-bids/>

Port funds student lessons at Chula Vista Nature Center

CHULA VISTA — The San Diego Unified Port District has awarded the Chula Vista Elementary School District nearly \$12,000 to ensure that thousands of students continue to participate in programs at the Chula Vista Nature Center.

The port's financial assistance program announced the \$12,000 award last week.

Additionally, the port's Environmental Projects Benefiting the Bay Program awarded \$8,000 for each of the next three years to fund transportation to the center for needy district classes.

This year the port has provided financial support for 164 classes and more than 4,100 students to attend one of 15 Coastal Education Programs offered by the nature center. The district is the largest kindergarten-through-sixth-grade district in the state and serves more than 27,500 students in 44 schools.

District officials say students gain understanding and respect for their local environment after participating in the programs. Students get to collect and view plankton, touch crabs and snakes and hike to find native plants and animals.

JANINE ZÚÑIGA