



# The NASSCO Tidepool

## Environmental Engineering Mission Statement

General Dynamics NASSCO Environmental Engineering is dedicated to maintaining an Environmental Management System that continually strives to go beyond regulatory compliance.

General Dynamics NASSCO Environmental Engineering is committed to conducting all operations in a manner that safeguards the health and safety of all employees and the public, preserves natural resources, and protects the environment. This commitment to protecting the air, water, and land is carried out through energy conservation initiatives, recycling programs, and on-going process improvements.

## NASSCO's Continuing Commitment to Chollas Creek

By Kacey Christie, Environmental Engineering Specialist



In July 2002, NASSCO made a commitment to improve the environmental conditions at the mouth of Chollas Creek which borders the shipyard to the South. Chollas Creek is approximately 30 miles long and originates in La Mesa and Lemon Grove, winding through the San Diego communities of City Heights, Encanto, Valencia Park, Lincoln Park, Southcrest and Barrio Logan before emptying into San Diego Bay near NASSCO. This creek is adversely impacted by urban storm water run-off that enters the Creek throughout its course; as a result, Chollas Creek was placed on the Clean Water Act, Section 303(d) list for toxicity, cadmium, copper, lead, zinc and the household pesticide diazinon.

### Storm water Runoff Pollution Prevention (P2) Measures

To prevent debris from entering the creek due to wind or storm action from the NASSCO employee parking lots, chain link fencing was installed and lids were made for all parking lot trashcans to prevent seagulls from eating and spreading trash. Additionally, the St. Madeleine Sophie's Center was contracted to conduct parking lot cleanups at least twice a

week. St. Madeleine Sophie's Center is a non-profit organization dedicated to enriching the lives of developmentally challenged adults by helping them gain self-sufficiency through meaningful work and personal expression. NASSCO recognized their pollution prevention commitment by awarding them a NASSCO Environmental Star Award in 2003.

### California Fiddler Crabs

The mouth of Chollas Creek adjacent to the NASSCO parking lots is home to some very unique creatures known as California fiddler crabs. These crabs spend most of their time out of the water feeding in the mud while the tide is out. Once the tide rolls in, they retreat deep into their burrows, trapping a pocket of air until the tide recedes again.

Fiddler crabs eat by scooping up mud and passing it through their mandibles. They separate small bits of algae from the grains of sand and mud. Since there is very little algae in the mud, they must eat constantly whenever the tide is out.

These crabs have often been described as an "environmental indicator species" since their life-cycle is dependent upon a pollution-free environment. Trash, debris and other forms of pollution can be very harmful. For example, hazardous chemicals can poison the algae growth, thereby causing starvation. Trash and debris dumped into the creek bed can cover or block their burrows thereby trapping the crabs and causing suffocation.



The NASSCO Chollas Creek Cleanup Committee (NC4) of volunteers was formed in July 2002 to plan and conduct Chollas Creek community cleanup events. This committee is dedicated to protecting the fiddler crabs and other wildlife that live at the mouth of the creek. Today, this commitment has spread to three cleanup events annually.

### San Diego's Creek to Bay Cleanup – Saturday, April 26, 2008

This annual cleanup event is conducted by the environmental action committee, I-LOVE-A-CLEAN-SAN DIEGO. This is a San Diego County wide-event, for which NASSCO sponsors and coordinates a cleanup at the mouth of Chollas Creek adjacent to the NASSCO parking lots.

### Operation Clean Sweep – Saturday, June 7, 2008

Operation Clean Sweep is an annual San Diego Bay cleanup conducted by the San Diego Port Tenants Association that NASSCO has participated in since its inception 17 years ago. Thanks to the attention brought by NASSCO in September 2002, Operation Clean Sweep was expanded in June 2003 to include the Chollas Creek bed.

**California Coastal Cleanup Day – Saturday, September 20, 2008**

In this annual cleanup event, NASSCO again teams with I-LOVE-A-CLEAN-SAN DIEGO to participate in the California Coastal Cleanup Day sponsored by the California Coastal Commission. When combined with the International Coastal Cleanup, organized by The Ocean Conservancy, that takes place on the same day, California Coastal Cleanup Day becomes one of the largest volunteer events in the World.

In the last 6 years the NASSCO Chollas Creek Cleanup Committee has removed more than 13 tons of urban trash and debris from the Chollas Creek bed during the CA Coastal Cleanup Day and Creek to Bay cleanup events.

Creek to Bay - April		# of Volunteers	Trash (lbs)	Recyclables (lbs)	Total Debris (lbs)
2004		30	1,525	75	1,600
2005		64	1,560	35	1,595
2006		32	1,600	5	1,605
2007		62	7,975	27	8,002
<b>2004-07 Creek to Bay - TOTALS</b>		<b>188</b>	<b>12,660</b>	<b>142</b>	<b>12,802</b>

  

Coastal Cleanup Day - Sept		# of Volunteers	Trash (lbs)	Recyclables (lbs)	Total Debris (lbs)
2002		40	1,253	50	1,303
2003		48	644	55	698
2004		37	279	25	304
2005		42	940	4	944
2006		35	2,700	0	2,735
2007		90	8,800	0	8,800
<b>2002-07 Coastal Cleanup Day - TOTALS</b>		<b>292</b>	<b>14,615</b>	<b>134</b>	<b>14,784</b>

  

<b>2002-07 TOTALS BOTH CLEANUPS</b>		<b>480</b>	<b>27,275</b>	<b>276</b>	<b>27,586</b>
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**Groundwork San Diego - Chollas Creek**

General Dynamics NASSCO is a member of Board of Directors of Groundwork San Diego - Chollas Creek.

This grass-roots organization is dedicated to restoring the entire length of Chollas Creek. In addition to trash & debris removal NASSCO has been involved in restoring the creek bed by removing non-native species under the direction of fellow board member Eric Bowlby of the Sierra Club.

**Earth Lab Restoration**

As a member of Groundwork Chollas Creek, NASSCO has been actively involved in the restoration of EarthLab. Earthlab is program of the San Diego Unified School District. It is a 3.6 acre outdoor elementary student science lab designed to train future environmentalists. It also provides students living in urban areas of San Diego the opportunity to experience the joy of planting and tending gardens. In order to restore EarthLab into a condition that is was ready for students, NASSCO volunteers trenched and installed a water sprinkling system. The NASSCO Blast, Paint & General Services Department also fabricated six flower bed boxes for students to plant vegetable gardens.

None of these great things would have been possible without the hard work of our volunteers and the NASSCO Chollas Creek Cleanup Committee (NC4): Mari Aguirre, Hugo Bermudez, Kacey Christie, Bart Deem, Martin Espinoza, Jr., Chad Haza, Daisy Leon, Julius Manabat, Mary Montgomery, Vince Palencia, Alex Plaza, Dave Saavedra, Dave Samudio, Marc Vignocchi, and Ken Wright. This team of NASSCO employees from various departments such as Blast, Paint and General Services, Engineering, Master Planning, On-Board Management, Public Relations, Safety, Maintenance, Environmental and the Professional Development Program, plan and conduct these Chollas Creek events each year during their lunch break. They then give up their Saturdays demonstrating this commitment to Chollas Creek. Special thanks also to the following NASSCO departments:

- Medical for disposing of biomedical wastes found such as syringes.
- Reclamation for providing skip tubs & disposing of the trash.
- Blast Paint & General Services for fabrication of the planter boxes.

The Creek to Bay Cleanup is around the corner, so mark your calendars for Saturday, April 26, 2008 from 9 a.m. to noon and join NASSCO as we again tackle the job of removing this urban storm water runoff debris. For additional information about an upcoming event or to join the NC4, contact one of the committee chairs Hugo Bermudez ext. 7780 or Kacey Christie at ext. 7963 in the Environmental Engineering Dept.

