

STATE OF THE San Diego River

NOV. 2011 REPORT



*Connect.
Create.
Conserve.*

Message from the Executive Director

The first State of the River Report was created to try to answer the commonly asked question “is the River healthy?” It was designed to represent a “snapshot” of the condition of the San Diego River. Since the first edition, the report has developed



into the guiding force behind our award winning Healthy River, Healthy Communities program.

Results from the data collected for the report will be used to establish action plans for 2012, and clearly, 2012 will again focus on the removal of trash. The report demonstrates significant progress is being made, but challenges do remain.

With the River being 52 miles long and collecting water draining from a 440 square mile area, many communities will directly benefit from a healthy river system.

We invite you to join us as we work toward a healthy river!
- by Rob Hutsel

Where the Data Comes From

Data used in the report was collected by volunteers and partners during the San Diego River Park Foundation’s October 2011 River Blitz survey and September 2011 water quality monitoring.

Volunteer teams led by a trained team captain collected the survey data using handheld GPS units, digital cameras and data forms. For each section a grade was determined based upon a grading system which has been developed over the past several years. Water quality monitoring results are represented through a ranked Water Quality Index. The Index grades follow strict protocols (QA/QC procedures).

Sections	I	II	III	IV	V	VI	VII	VIII	IX	X	Overall
Trash	A	F	B	B	F	A	D	B	A	C	C
Water Quality		F	F	F	F	C	D	F			D
Invasive Non Native Plants	A	C	A	F	B		A	B	A	A	B
Cumulative Grade	A	F	C	D	D	B	C	C	A	B	C

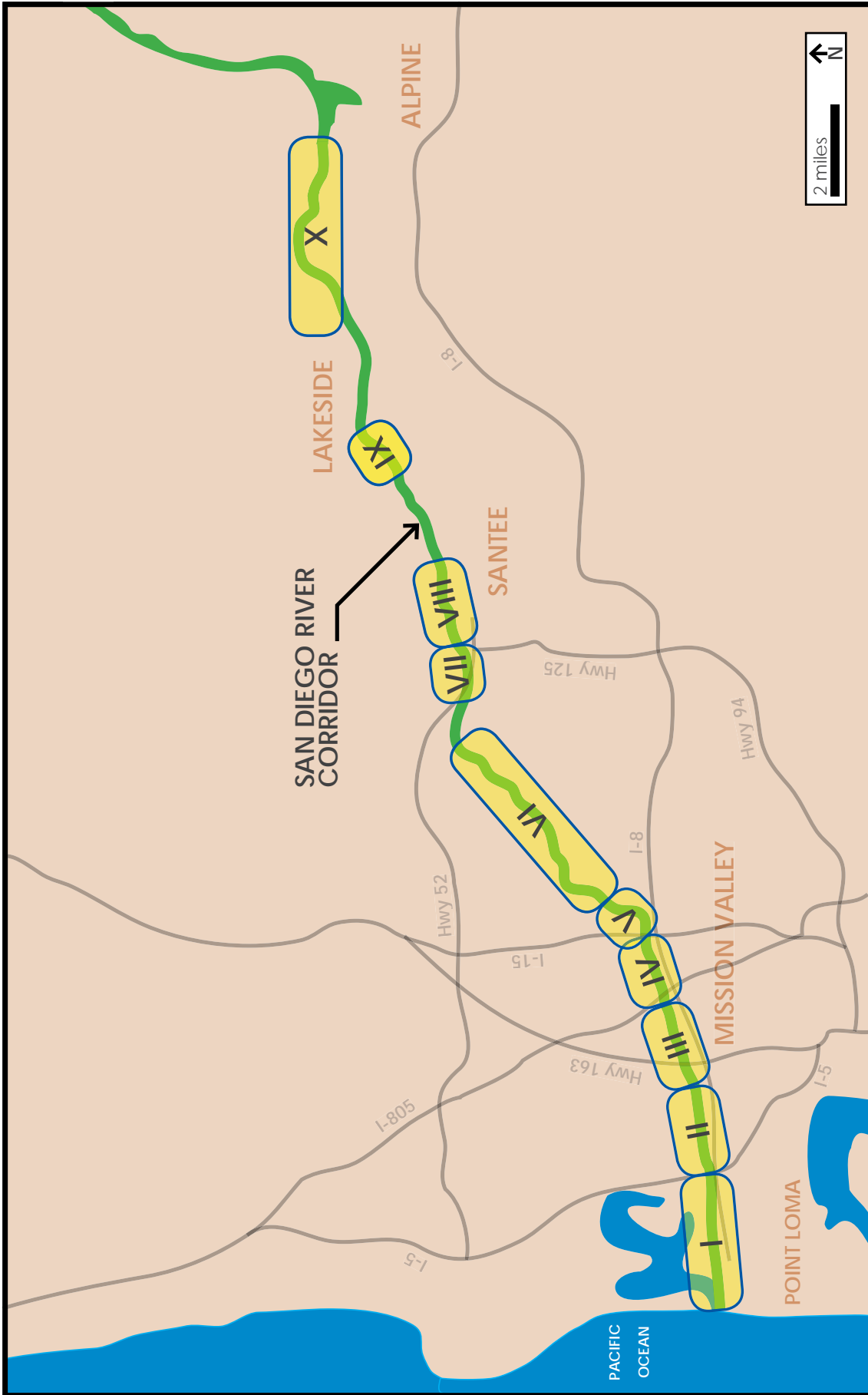
River Health Scale

Very Poor

Excellent



I	Estuary	VI	Mission Gorge
II	Mission Valley West	VII	Santee West
III	Fashion Valley Rd to Qualcomm Wy	VIII	Santee East
IV	Qualcomm Wy to 1-15	IX	Lakeside
V	Mission Valley East	X	El Monte Valley



Section Locations Along the San Diego River

The river has been divided into sections for the purpose of this report. Each section was divided further into segments corresponding to a survey which would take 2 to 3 hours.



Trash

Six of the ten sections recorded a B or A grade. This represents successes of trash removal programs. That is the good news.

The bad news is that 2 sections received an F and one received a D grade. The trash is largely collected in a few areas which received waters from storm drains and larger sub-watersheds. Some of these areas are also areas with high concentrations of encampments. These areas can quickly accumulate trash if they do not receive ongoing attention.

Quick Fact:

Non Point Source Pollution is often called "people pollution" because it comes from everyday activities like littering. Trash that gathers on sidewalks or roads enters the river via canyons and stormdrains.

Through education, this source of pollution can be greatly reduced.

This image captures how data collected during field surveys is mapped and used for community volunteer clean-ups.

Each point represents a site with at least one bag of trash that needs to be removed. Some represent a thousand pounds of trash or more that needs to be removed.



Water Quality

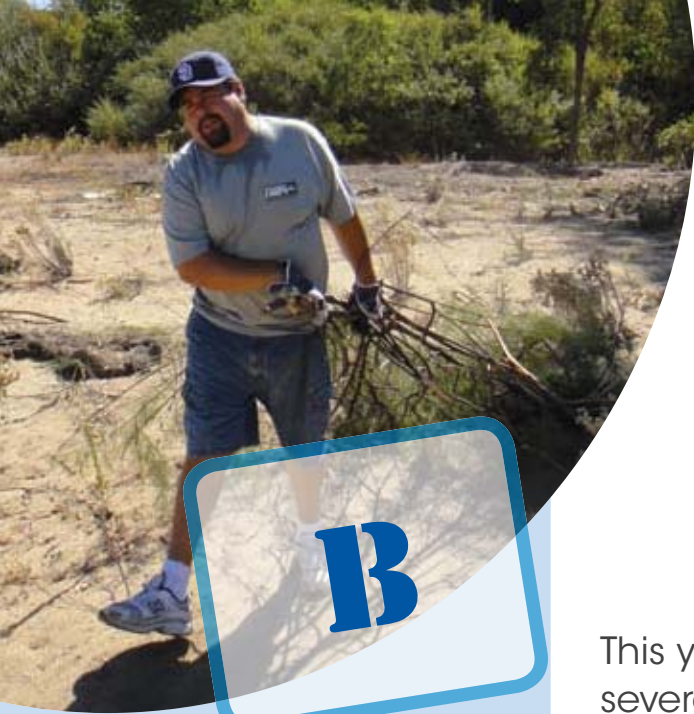
For the second year fish kills were documented during October. Low dissolved oxygen accounts for the poor water quality grades. High growth levels of an aquatic plant, water primrose, is one of the potential causes in the Santee section. Low summer and fall river flows in ponded sections combined with excess nutrients can accelerate the growth of this plant and in other ways decrease dissolved oxygen levels. Water quality during this time of the year is generally poor in all sections of the River. Studies are needed to help develop action plans to address this problem.



Quick Fact:

Dissolved oxygen is the amount of oxygen that is in a body of water. In the River's case, when oxygen levels are low it impacts the river's ability to cleanse itself of several pollutants and support aquatic life. The river gains oxygen from the atmosphere and from plants as a result of photosynthesis. Dissolved oxygen is consumed in the river by aquatic animals, decomposition, and various chemical reactions.

Many sections of the river are ponded from the previous sand mining operations and flood control measures. These areas can be very beautiful but during the summer and fall they can experience fish die-offs due to depletion of oxygen levels.



Invasive Non-Native Plants

Quick Fact:

Invasive non-native plants are those that are moved from another area and then crowd out local plants. When this is done, wildlife that has adapted to the native plants can lose a food source or a place to nest. Often the invasive non-native plant crowds out other plants to the extent that they are the only plant remaining, creating significant problems.

This year’s survey documented the success of several large habitat restoration projects that have been initiated since October 2010. Overall, only one of the ten sections received a grade lower than C.

Several emerging stands of non-native plants were recorded in Santee and El Monte Valley, which if addressed now can prevent the need for larger more expensive projects in the future. Surveys documented that the December 2010 high water flows deposited giant reed rhizomes into new areas. The section of the river downstream of I-15 received a failing grade and requires a significant habitat restoration project.

An example of a mixed cluster of invasive non-natives in the estuary of the San Diego River including pampas grass, Canary Island date palms and fennel.

Selected invasive plants are documented during river surveys.



Is the River Healthy?

It is one of the most common questions we receive. There are many ways to document and describe the health of a river system. A simple way is to think about whether you would swim in it, drink from it, or eat the fish caught in it.

Sadly, for most people, the answer to all of these questions is no.

The RiverBlitz survey program started in 2008 to bring awareness about the poor health of the river. While trash, water quality and invasive non-native plants tell part of the story, there are more indicators of the River's health. Additional community-based monitoring can not only supplement public agency programs but also help inform the public about emerging issues. The simple question which is asked is not so simple to answer. Nonetheless, it is an important question to keep asking.



The River's Grade

For October 2011 the San Diego River received an overall grade of C or Fair. Water quality grades degraded while trash and invasive non-native plant grades both improved. For a complete report, including data details, visit www.sandiegoriver.org/healthyRiver.php.





Be a Part of the Solution

Do you want to get involved? Contact the San Diego River Park Foundation today to learn about opportunities.

Visit www.sandiegoriver.org or call (619)-297-7380.

The river flows every day and each day it needs your help!

Acknowledgements

This report would not be possible without the wonderful and dedicated RiverBlitz volunteers. Special thanks to RiverBlitz Team Leaders and Interns: Tina Davis, Barbara Palan, Penny Tolchin, Linda Duling, Erika Weikel, Kristie Livengood, Gary Strawn, Martin Offenhauer, Ed Murphy, Angelic Torres, Chris Zeier, Anh Nguyen and Wendy Kwong. Thanks to RiverWatch Team Leader John Kennedy for compiling the water quality data, and Santana High School for their special efforts in Santee. We would also like to extend a sincere thanks to Irene Zabelin for volunteering her wonderful graphic design talent to help produce this report. And to our own Shannon Quigley-Raymond for her leadership and passion.

The San Diego River Park Foundation is a 501c3 nonprofit organization dedicated to creating a better future for the San Diego River.