a living river
CHARTING SANTA CRUZ RIVER CONDITIONS
NORTHWEST TUCSON TO MARANA

Claire Zugmeyer
The Santa Cruz River: from Mexico to Marana, is a living, flowing river and the foundation of community health and prosperity.
Santa Cruz River Watershed
Santa Cruz River near Tumacácori, 2015

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Santa Cruz River near Ina Road, 2014

T. Moody
Living River report series tracks improvements on Santa Cruz River near Nogales

- Effluent stretch in Santa Cruz County
- 2008-2010 water years
- 2008-2014 water years

Coming soon 2008-2018 water years
Living River reports expand to Tucson reach in partnership with Pima County
Santa Cruz near Tucson
Water quality and clarity improved

Cloudy water, May 2013

Clear water, June 2014
Little to no ammonia

2013 average
13 mg/L ammonia

2017 average
1 mg/L ammonia
Increased Fish Diversity

- Western mosquitofish
- Black bullhead
- Common carp
- Green sunfish
- Bluegill sunfish

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Gila topminnow returns in 2017 after 70 year absence!
Increased aquatic invertebrate diversity

2013 baseline

2017

Number of species average

5

11
Sustained increase in recharge reduces flow extent

<table>
<thead>
<tr>
<th>Year</th>
<th>Flow in June</th>
<th>Dry Days At Trico Rd</th>
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<tbody>
<tr>
<td>2013</td>
<td>23 miles</td>
<td>0</td>
</tr>
<tr>
<td>2014</td>
<td>19 miles</td>
<td>94</td>
</tr>
<tr>
<td>2015</td>
<td>16 miles</td>
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<td>2016</td>
<td>22 miles</td>
<td>109</td>
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<tr>
<td>2017</td>
<td>21 miles</td>
<td>67</td>
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</table>
River valued for open space

- 90% Open space for connecting with nature
- Flood Protection
  - Replenishes groundwater supply
  - Offers environmental resilience
  - Cultural identity
- 70% Natural habitat
  - Recreational & travel corridor
  - Community space
- 25% Personal financial benefit
Manage for wildlife habitat

- Maximize wildlife habitat: 80%
- Maximize aquifer recharge: 70%
- Flood safety, Recreational improvements: 60%
- Pest control: 50%
- Minimize expense, Minimal management: 40%
- Water visibility: 35%
The **Next** Steps

- Secure water for the river
- Identify conservation and restoration opportunities
- Integrate community values and priorities with river management
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