Sustainability Research at the
USC Wrigley Institute for Environmental Studies

Dr. Ken Nealson, Director

Research Across our Cornerstones

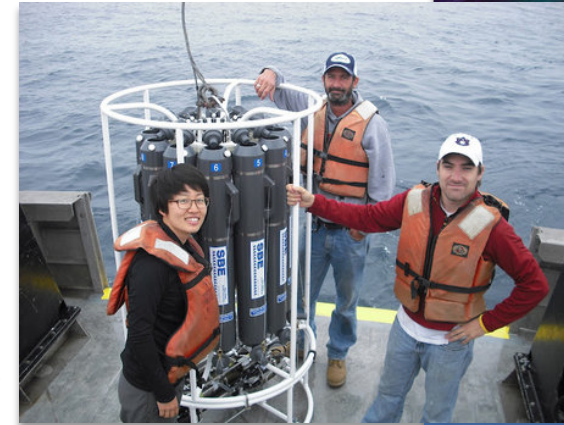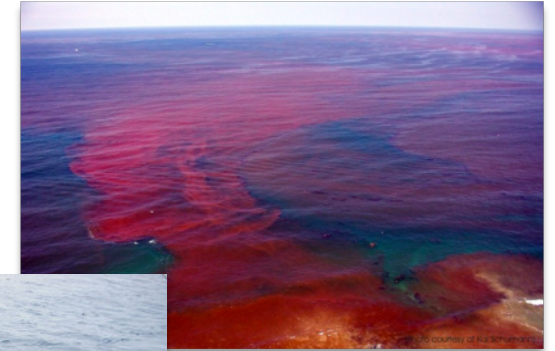| Healthy Oceans	Coastal Megacities	Sustainable Living
• 20 Years of Coastal Monitoring: San Pedro Ocean Time-Series • Ocean & Climate Modeling • Impacts of Changing Environments on Marine Life • Coastal Sediments and Climate • Catalina & Boat Ocean Sensors	• Harmful Algal Blooms • Light Pollution • USC Sea Grant: 'Urban Ocean' and Sea Level Rise • CO_2 Sources & Sinks in SoCal • Impacts of Invasive Species • Marine Protected Areas and Human Interactions	• Kelp Biofuel - Sustainable Energy • Shellfish Aquaculture Genetics: 'Future of Food from the Sea' • Microbial Fuel Cells – Energy from Microbes • Food Waste Recycling • Fellowships in Solar and Renewables • Freshwater Security

What We Do

- **Enable Coastal Research**

  - Harmful Algal Blooms: Understanding risks to wildlife & human health

- **Collect Long Term Data to Track a Changing World**

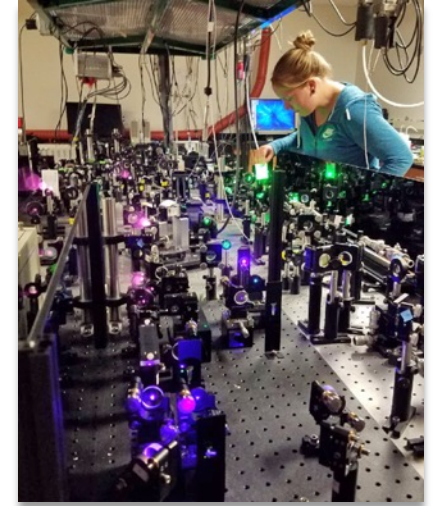 - San Pedro Ocean Time-series: Oceanographic data off L.A.

- **Support Innovation Toward Sustainable Solutions**

  - Freshwater Security: Keeping our drinking supply safe

  - Kelp Biofuel : Alternative energy from the sea

  - Future of Food from the Sea: Sustainable Seafood

Future Growth Areas

- **Expand the Wrigley Institute Faculty Innovation Fund**
  - Grants to foster faculty research in sustainability

- **Increase Fellowships for Sustainability Graduate Research**
  - Summer Sustainability Fellowship – 28 USC graduate awards to date

- **Catalina as a Test Bed**
  - A 'living laboratory' to engage faculty research and pilot solutions

- **Expand Industry and Decision-Maker Partnerships**
  - Moving solutions out of the laboratory and into society
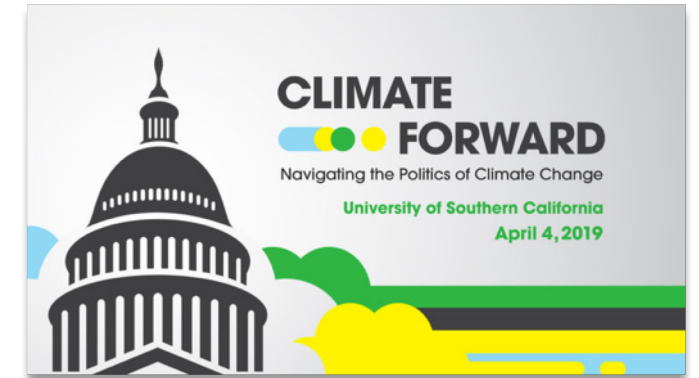
Cross-Campus Collaborations

- **Connecting Sciences to the Business Sector**
  - USC Wrigley Sustainability Prize
    - Mentorship with Marshall; Finalists from across campus

- **Linking Science, Policy and Politics**
  - Climate Forward: Navigating the Politics of Climate Change
    - Dornsife: Center for the Political Future and Price: Schwarzenegger Institute

- **Computer Sciences for the Environment**
  - Collaborations with Viterbi's Information Sciences Institute
    - Big data, artificial intelligence, etc.

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