

## Tijuana River National Estuarine Research Reserve

"A Wetland of International Importance" *International Ramsar Convention, 2005*



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jcrooks@tnerr.org



25 July 2018

Dr. Hany Elwany  
Coastal Environments

RE: Participation in Sand Dune Restoration Project

Dear Dr. Elwany,

Thank you for the offer to join the team addressing the restoration of sand dunes at Border Field State Park, which is part of the Tijuana River National Estuarine Research Reserve. I would be pleased to participate in this important effort, and can offer my time as an in-kind contribution to the project.

The primary restoration focus of the Tijuana River NERR is the Tijuana Estuary Tidal Restoration Program (TETRP). This program began in the late 1980's, and has implemented two tidal marsh restoration projects to date. We are currently conducting design and engineering for the next phase of restoration, which is focusing on 80 acres of coastal wetland complex at Border Field. We anticipate that dune restoration will be a key feature of this project, as it has been one of the explicitly-stated goals of TETRP for almost 30 years. Unfortunately, we still know relatively little about how to best approach dune restoration in this area, and are thus very pleased to support your proposed work. This is especially true given that another explicit TETRP goal is to incorporate research into our adaptive restoration program. The approach laid out in the proposed project does exactly that, and should help us identify methodologies that can be applied as part of TETRP. I am sure this work also will be of broader interest for those doing dune restoration throughout the region.

As part of the Project Team, I will ensure that the proposed project meshes with the activities of TETRP. For this, TETRP has convened a Design Team, which consists of land owners, resource managers, and project proponents (e.g., California State Parks, U.S. Fish and Wildlife Service, and the Southwest Wetlands Interpretive Association – the NGO leading TETRP). I see this group representing the core members of the proposed Management Transition Advisory Group. The Tijuana River NERR also has convened a Science Advisory Team, which I lead, to help us advance TETRP, and this dune restoration will be of great interest to this group.

Again, thank you for bringing the expertise of your team to bear on this critical issue, and I am happy to support you however I can.

Sincerely,

Dr. Jeffrey Crooks

Research Coordinator & Lead Scientist, Tijuana River National Estuarine Research Reserve  
Research Associate, Scripps Institution of Oceanography, University of California San Diego  
Affiliated Faculty, Marine Science Graduate Program, University of San Diego



# City of Imperial Beach, California

OFFICE OF THE MAYOR

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July 26, 2018

Ms. Phyllis Griffman  
Associate Director  
University of Southern California Sea Grant Program  
University Park Campus  
CA5 200  
Los Angeles, CA 90089

**RE: Support Grant for Sand Dune Restoration Project at Border Field State Park**

Dear Ms. Griffman,

The City of Imperial Beach supports a *Sea Grant* application for the project entitled "Green Engineering Techniques to Restore Sand Dunes at Border Field State Park". This project will study how different soft engineering approaches can lead to increased sand deposition or vegetation cover on sand dunes over time using nature as the primary change agent.

The City has a strong partnership with the Tijuana River National Estuarine Research Reserve and collaborate on coastal management decisions through various projects. This proposal includes the establishment of a Management Transition Advisory Group (MTAG) made up of local stakeholder agencies, governments, and other interested entities to communicate and collaborate as the project unfolds. The City finds value in the scope of this project and the advisory role of the MTAG group.

We think the Tijuana Estuary and its 3 miles of protected coastline is an ideal location to test ecosystem engineering approaches that enhance natural processes. The outcomes of this study will shape future, nature-based features that protect wetland habitat against sea level rise and influence the management of dune habitat as a possible sea level rise adaptation strategy. At the City, we are very interested to learn about nature-based engineering approaches and how they can be applied to other areas of our coastline. This project will help answer some important sea level rise adaptation questions that will influence future coastal management decisions in the City.

Sincerely,

Serge Dedina  
Mayor



August 3, 2018

Ms. Phyllis Griffman  
Associate Director  
University of Southern California Sea Grant Program  
University Park Campus  
CA5 200  
Los Angeles, CA 90089

Dear Ms. Griffman,

I am writing in support of the *Using Green Engineering Techniques to Restore Coastal Sand Dunes in Border Field State Park, San Diego, California* project proposal for Border Field State Park in the Tijuana River Valley. The project research goals and design analyses will help to eventually restore the sand dune ecosystem at Border Field State Park and protect previous, current, and future restoration at the Tijuana Estuary. The State Coastal Conservancy has long supported the restoration of this valuable ecosystem and the research and learning approach employed by the numerous project partners over the past decades.

The proposed formation of a Management Transition Advisory Group is an approach that will ensure that stakeholders, agency partners and scientists work cooperatively to arrive at the best design and research analysis possible. The Coastal Conservancy looks forward to participating on that team should the project proposal receive approval.

Further, the work plan, experimental design, and monitoring program described in the proposal is well conceived and should yield valuable research data for potential application elsewhere along the Southern California Coast.

Sincerely,



Joan Cardellino  
South Coast Regional Manager

1515 Clay Street, 10<sup>th</sup> Floor  
Oakland, California 94612-1401  
510•286•1015



August 9, 2018

Dr. Hany Elwany  
Coastal Environments

RE: Support for "Green Engineering Techniques to Restore Sand Dunes at Border Field State Park".

Dear Dr. Elwany,

I would like to express my support for your proposal "Green Engineering Techniques to Restore Sand Dunes at Border Field State Park". The proposal is to study how different soft engineering approaches can lead to increasing sand deposition or vegetative cover on sand dunes over time using nature as the primary change agent. The outcomes of this study may shape future, nature-based features that could potentially protect wetland habitat against sea level rise by positively influencing the sand dune's protective features of height and width.

As the Senior Environmental Scientist for Border Field State Park, and the Manager of the Tijuana River National Estuarine Research Reserve (TRNERR), I understand the need to restore a functional sand dune system for this area. More importantly, I am keenly aware of the value of this study in offering us science-based information that we will use to inform future coastal management in the Tijuana River Valley and other units of the State Park system.

The primary restoration focus of the TRNERR is the Tijuana Estuary Tidal Restoration Program (TETRP). This program began in the late 1980's, and has implemented two tidal marsh restoration projects to date. We are currently conducting design and engineering for the next phase of restoration, which is focusing on 80 acres of coastal wetland complex at Border Field. We anticipate that dune restoration will be a key feature of this project, as it has been one of the explicitly-stated goals of TETRP for almost 30 years. Unfortunately, we still know relatively little about how to best approach dune restoration in this area, and are thus very pleased to support your proposed work.

I would like to thank you for assembling your team of highly experienced coastal restoration scientists, engineers and stakeholders to focus on this area, and I look forward to working with you on this exciting topic.

Christopher M. Peregrin  
Senior Environmental Scientist- Border Field State Park, Silver Strand State Beach  
Manager, Tijuana River National Estuarine Research Reserve



## Surfrider Foundation San Diego

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*Dedicated to the protection and enjoyment of our oceans, waves and beaches.*

**August 6, 2018**

Ms. Phyllis Griffman  
Associate Director  
University of Southern California Sea Grant Program  
University Park Campus  
CA5 200.  
Los Angeles, CA 90089

### **RE: Support Sea Grant Fund for Coastal Sand Dune Restoration Project at Border Field State Park, San Diego, CA**

Dear Ms. Griffman,

Surfrider Foundation, San Diego chapter, wishes to express its strong support for Sea Grant funding to the project entitled "Green Engineering Techniques to Restore Coastal Sand Dunes at Border Field State Park". The project will investigate the performance of how different living shorelines approaches can be applied in Southern California's coastal dunes to increase the resilience of coastal zones against sea level rise, while it recreates the rare and valuable native coastal ecosystem.

We especially appreciate the broad range of benefits and the unique synergy of the project. It will increase beach and dune habitat for shorebirds and their entire ecosystem; will protect a sensible and unique wetland habitat present in Southern California against sand movement towards the wetland; will test the best techniques to rebuild and stabilize the historical coastal sand dune system present at Tijuana Estuary.

The outcomes of this study will benefit local stakeholders and decision-makers to understand how to use living shoreline approaches to increase the resilience of our unique coastal zones. Surfrider Foundation hopes that the project will provide an example for future multiple benefit enhancement and restoration projects. Additionally, this project can serve as a model to show the efficiency of green engineering techniques in Southern California, and influence other coastal stakeholders in using these new approaches to increase the protection of our coastal zones, instead to still insist in using hard approaches (e.g. sea wall, jetties).

Sincerely,

*Gabriela M. Torres*

Gabriela M. Torres | Policy Coordinator | [Surfrider Foundation San Diego](http://Surfrider Foundation San Diego)  
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*For an overview of the Surfrider Foundation San Diego Chapter's current campaigns, programs and initiatives go to [www.surfridersd.org](http://www.surfridersd.org) or contact us at [info@surfridersd.org](mailto:info@surfridersd.org) or (858) 622-9661.*