



CITY COUNCIL  
**Staff Report**

**Meeting Date:** Sept. 14, 2021

**To:** Mayor and City Council

**From:** Scott Chadwick, City Manager

**Staff Contact:** Michael Grim, Senior Program Manager  
mike.grim@carlsbadca.gov, 760-602-4623  
Kristina Ray, Communication & Engagement Director  
kristina.ray@carlsbadca.gov, 760-434-2957

**Subject:** Amendments, Grant Funds and Engagement Plan for the South Carlsbad Boulevard Climate Adaptation Project

**Districts:** 2 and 3

### Recommended Actions

1. Adopt a resolution authorizing the City Manager or designee to execute amendments to the State Coastal Conservancy Grant Agreement, University of California Research Agreement, and Professional Services Agreement with GHD, Inc., for the South Carlsbad Boulevard Climate Adaptation Project and accepting and appropriating grant funds to the Environmental Management Department budget
2. Provide direction on the public engagement process for the South Carlsbad Boulevard Climate Adaptation Project

### Executive Summary

The City of Carlsbad is working on a grant-funded project to demonstrate how a portion of Carlsbad Boulevard could be moved away from hazards caused by sea level rise. After exploring options, the project team has determined that the restoration of Encinas Creek is a critical component to the overall project. Because this was not included in the original scope of work, the contract must be amended and additional funding, which will be provided by the California State Coastal Conservancy, must be appropriated.

The end product of the study will be a conceptual design of how southbound Carlsbad Boulevard from Palomar Airport Road to Island Way could be moved to the east and the coastal land repurposed for other uses. The project team has analyzed potential roadway alternatives based upon physical and regulatory constraints. Before the city pursues additional design work, staff recommend engaging the public about these alternatives. Additionally, members of the public have expressed an interest in creating a coastal park in the southwestern portion of the city, which could include land within the project area.

The funds for the analysis of the Encinas Creek restoration would be derived from existing project contingency funds, a reduction in research agreement funds initially intended for the Scripps Institution of Oceanography and an augmentation to a Coastal Conservancy grant.

## Discussion

### **Agreement amendments**

On May 5, 2020, the City Council adopted Resolution No. 2020-077, accepting a \$498,075 grant from the Coastal Conservancy, and entering into a research agreement with the University of California, Scripps Institution of Oceanography, for the project. The City Manager executed a Research Agreement in the amount of \$233,074 with the University of California to assist with the project on May 7, 2020.

On June 16, 2020, the City Council adopted Resolution No. 2020-109, authorizing a professional services agreement with GHD, Inc., for consulting services related to the project in the amount of \$249,645.

The project is focused on relocating the southbound lanes of South Carlsbad Boulevard from approximately Manzano Drive to 400 feet south of Island Way eastward to maximize the roadway's resiliency to coastal flooding and cliff erosion. In the area near Palomar Airport Road and Las Encinas Creek, southbound Carlsbad Boulevard is exposed to hazards from bluff erosion. Periodic flooding of the southbound lanes already occurs, dumping sand and rocks from the beach on the roadway surface and lane closures.

As indicated in the city's Sea Level Rise Vulnerability Assessment report (December 2017), there is a high risk of damage and disruption to Carlsbad Boulevard by 2050 due to rising sea level, bluff erosion and flooding. The assessment also found that "Adaptation to sea level rise, and other results of climate change involves taking appropriate actions to prevent or minimize the adverse effects of climate-induced impacts."

The project involves several phases: preliminary conceptual designs will be developed followed by design alternatives and a design of 15%-30% of a potential preferred alternative. The project has three components: roadway design including trails and coastal access, habitat enhancement and community vision spaces near Palomar Airport Road and Encinas Creek. It builds upon roadway realignment work conducted in 2012 and 2013 as part of Capital Improvement Program Project No. 6031. Once the work is done, staff will submit a final report to the Coastal Conservancy. All work is to be completed by Feb. 28, 2023. Staff anticipate presenting the final report to City Council in late 2022.

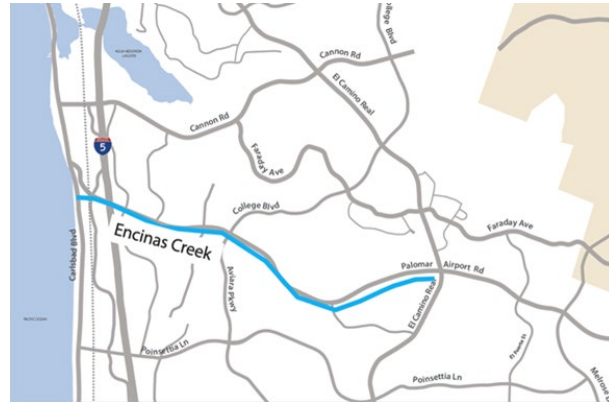
### Roadway realignment

The project team has explored conceptual roadway design alternatives based upon the project's physical constraints, most notably the coastal bluff erosion hazard, city and state roadway design standards and policies, as well as input from key city staff and regulatory agencies.

While the alignment of the roadway in the new eastward location is relatively fixed because of the cliff erosion hazards, there are many potential options for components of the roadway – the sidewalks, paths and trails, special intersection designs, lane and buffer widths and the roadway crossing at Encinas Creek. The project team is preparing a conceptual design report detailing the constraints and alternatives and describing the analysis that was used to develop the conceptual designs.

### Encinas Creek restoration

As noted above, the project team determined that the restoration Encinas Creek in the project area is a critical component to the overall project. This requires additional analysis to fully inform decision-making. One alternative involves leaving the existing bridge, roadway and revetment intact until they experience significant deterioration from ocean impacts.<sup>1</sup> Another alternative, which is preferred by the California Coastal



Commission and Coastal Conservancy staff, is to remove the existing bridge, roadway and revetment and allow the creek mouth and the surrounding coastline to transition into a more natural system.

Both alternatives would involve wetland and upland restoration along the creek. If authorized by the City Council, the consultant, GHD Inc., would conduct the analysis described above, which requires a revision of its contract scope of work and budget. The proposed amendment to the city’s professional services agreement with the consultant, including the scope of work and budget, is included in Exhibit 1 as Attachment C.

### Public spaces, coastal access and parking

The eastward relocation of the existing southbound roadway provides opportunities for a range of alternative uses in the areas west of the realigned roadway, most notably near Palomar Airport Road and Encinas Creek. The project team conducted interviews with staff from the Community Development Department Planning Division, Parks & Recreation Department and California State Parks to evaluate the types and intensities of potential uses in these areas. On a parallel and related track is the city’s evaluation of potential park and open space opportunities within the city’s southwest quadrant, which the City Council directed staff to do in a minute motion on July 14, 2020 and on Jan. 26, 2021. The project team continues to coordinate with the Community Development and Parks & Recreation departments on these overlapping efforts.

There is no developed coastal access down to the beach in this area. Instead, there are a number of informal paths on the bluffs made by beachgoers over the years, which exacerbates bluff erosion. The project team has worked with State Parks and California Coastal Commission staff to identify tentative locations for beach access improvements, most notably at the Solamar Drive intersection and Encinas Creek.

Parking availability is important to ensure coastal access. As the bluff erodes, some existing parking locations may be lost. To maintain no net loss of parking, alternative locations should be identified and developed, and staff recommend a phasing plan for the transition. State Parks owns a parcel west of the Palomar Airport Road intersection, which currently contains an informal dirt parking area commonly known as “Turnarounds.” State Parks also owns the

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<sup>1</sup> Revetments are sloping structures placed on riverbanks or bluffs to absorb the energy of incoming water.

western half of the parking area just north of the campground. The remainder of the property is within the city's right-of-way.

The project team will continue to work with staff in various city departments, State Parks and the California Coastal Commission to identify suitable parking locations and a phasing plan that accommodates bluff erosion while maintaining parking space amounts.

## Options

### **Agreement amendments**

Staff provide the following options on the agreement amendments for the City Council's consideration:

1. Adopt a resolution authorizing execution of amendments to the State Coastal Conservancy grant agreement, the University of California, Scripps Institution of Oceanography research agreement and the professional services agreement with GHD Inc.

#### Pros

- Provides an analysis of restoration alternatives to help inform conceptual designs of the roadway, trails, coastal access and community vision spaces
- Evaluates the physical and ecological interactions between Encinas Creek and the shoreline through the lens of sea level rise and increased storm and wave intensity
- Scripps Institution of Oceanography can still complete the necessary cliff hazards analysis with the remaining available research agreement funds
- Sufficient funding is available for the agreement without the use of city funds

#### Cons

- None identified

2. Do not adopt a resolution authorizing the execution of the amendments

- None identified

#### Cons

- The conceptual design decisions at and near Encinas Creek would be less informed
- The potential future interaction between the creek and surrounding area with the expected sea level rise and increased storm and wave intensity would be unknown
- Rejection of additional grant funding from the State Coastal Conservancy may cause a need for city funding later in the project's implementation if information about Encinas Creek is needed

Staff recommend Option 1 for the City Council's approval – adopt a resolution authorizing execution of amendments State Coastal Conservancy grant agreement, the University of California, Scripps Institution of Oceanography research agreement and the professional services agreement with GHD Inc.

### **Public engagement**

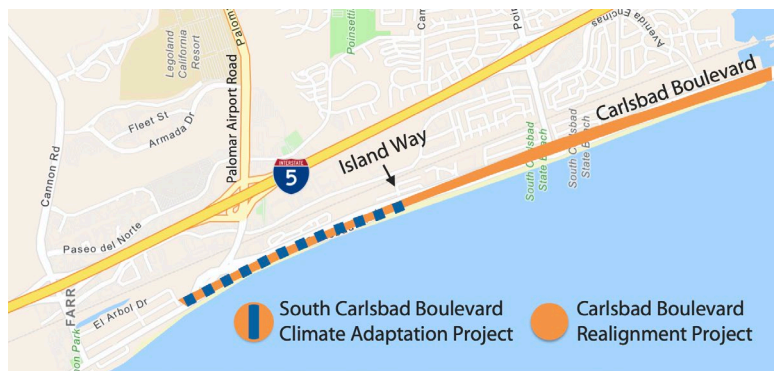
Because so many people are affected by the design and function of Carlsbad's coastline, potential changes are very likely to draw significant interest from a wide array of community

members. City staff are seeking feedback from the City Council on how and when to engage the community in the design of the 1-mile segment of roadway and the public use areas along the coast.

### Carlsbad Boulevard Realignment Project

City staff had begun the process of engaging the public in identifying needs, values and priorities along south Carlsbad Boulevard between 2010-13.

The Carlsbad Boulevard Realignment Project originally included exploring a potential land swap with the state of California and moving Carlsbad Boulevard to the east from Palomar Airport Road to La Costa Avenue.



The Carlsbad Boulevard Realignment Project originally included exploring a potential land swap with the state of California and moving Carlsbad Boulevard to the east from Palomar Airport Road to La Costa Avenue.

Because of the complexities of the land swap, the City Council directed staff in 2013 to redefine the city's approach to coastal improvements by focusing on land controlled by the city. The Carlsbad Boulevard Realignment Project has remained in the city's Capital Improvement Program, but it has not been prioritized for implementation.

The 1-mile study area that is included in the South Carlsbad Boulevard Climate Adaptation Project is within the Carlsbad Boulevard Realignment Project area.

### Previous outreach

The outreach for the Carlsbad Boulevard Realignment Project conducted from 2010-13 included preliminary discussions with property owners along Carlsbad Boulevard, including existing hotel properties, Poinsettia Cove, Waters End, and the Lanakai Lane and Solamar Mobile Estates communities. Initial feedback was also gathered from groups concerned about mobility and coastal protection.

The project team at that time also met with state elected officials, and state and federal wildlife agencies. A project website was created, and the city included information about the project in city newsletters and news releases about the City Council goals. Had this project proceeded, the next step would have been a broad public engagement process to develop a vision for south Carlsbad Boulevard.

### Engagement on similar projects

When the City Council decided to focus on coastal improvements on land controlled by the city, city staff engaged the Carlsbad community in the planning of two other coastal projects, the Terramar Area Coastal Improvement Project and the Carlsbad Boulevard and Tamarack Avenue Pedestrian Improvements Project. Through these processes, community members have shared their ideas and concerns related to mobility, coastal access, recreation, traffic flow and community character along Carlsbad's coastline.

### Opportunities for engagement

The South Carlsbad Boulevard Climate Adaptation Project includes two general topic areas that would benefit from public input.

- **Roadway design:** In moving the southbound lanes to the east, farther away from the ocean, the design of the road would change. As noted above, the eastward extent of the alignment is fairly set, based on the location of the northbound lanes and the extent of the city's right-of-way, but the public input could influence the number of lanes, the types of intersection controls used, such as roundabouts or traffic signals, and the types and locations of bike lanes and walking paths.
- **Coastal uses:** Moving the roadway to the east would free up coastal land for other uses, such as parking and parks spaces for gathering, recreation and expanded trails and bike paths. Public input could help prioritize and shape the design of this space.

### Options

#### Public engagement

Because of the overlap in project areas, staff have identified three public engagement options for the City Council's consideration and direction:

**Option 1:** Proceed with the 15%-30% conceptual design required by the South Carlsbad Boulevard Climate Adaption Study Project grant from a technical standpoint, but wait to engage the public until the city is ready to move forward with the Carlsbad Boulevard Realignment Project. The first step of the Carlsbad Boulevard Realignment Project would be to work with the community to develop a vision for the entire corridor, from Palomar Airport Road to La Costa Avenue.

#### Pros

- Could provide a more cohesive overall design of the coastline
- Would provide greater options and opportunities to address the community's input because the planning area would be larger and more diverse
- Could help address residents' concerns about park land in the southwest quadrant by identifying all of the potential coastal open space areas south of Manzano Drive and Palomar Airport Road and how they could be used

#### Cons

- Creating community consensus around a comprehensive vision for south Carlsbad Boulevard would take a minimum of 12 to 18 months
- The vision could not be completed in time to influence the 15% to 30% design requirement of the South Carlsbad Boulevard Climate Adaption Study Project grant
- Even if the city stresses that the 15%-30% designs are conceptual and could change based on input at a later time, the community could still feel city staff have predetermined ideas and biases for the project because they have already created a conceptual design

**Option 2:** Engage the public in the design of the roadway and public spaces in the mile-long project area only.

#### Pros

- Outreach could be completed in time to influence the project's conceptual design.

- The public could envision the entire South Carlsbad Boulevard Climate Adaptation Project area, rather than only the roadway.

Cons

- It could be hard for the public to visualize how this segment would eventually work with the rest of the corridor. Or, conversely, the community could provide input for this segment that would limit future options for other segments.
- Options for the public space would be greater if they were considered with other public spaces along the corridor.

**Option 3:** Engage the public in the design of just the mile-long segment of the roadway included in the climate adaption study, not the public coastal uses.

Pros

- Prioritizes the roadway, which is the infrastructure threatened by sea level rise
- The roadway conceptual design would reflect community needs, values and priorities
- Because options for the road alignment of this segment are limited, the scope of the engagement would be narrower (than if coastal uses were also discussed) and could be completed more quickly

Cons

- Although the road segment is relatively small, a large number of people travel through the area and would be highly interested in potential changes. This means those interested in this project would be relatively the same as if the city were engaging the public on both parts of the project. The city would then need to re-engage at a later time on the public uses and on rest of the corridor. This would result in multiple engagement processes rather than just one.

Staff request the City Council’s direction on how to proceed with the public engagement process.

**Fiscal Analysis**

**Agreement amendments**

The additional \$90,000 proposed for the Encinas Creek restoration alternatives analysis is derived from three sources: existing project contingency funds, a reduction in the University of California, Scripps Institution of Oceanography research agreement amount and a State Coastal Conservancy grant augmentation. The existing project contingency funds total \$15,356, the reduction in Scripps Institution of Oceanography’s research agreement funds total \$39,544, and the Coastal Conservancy grant augmentation funds total \$35,100, for a combined total of \$90,000. No additional city funds are necessary to fund the alternatives analysis.

**Public engagement**

The cost of the proposed community engagement is estimated to be between \$45,000 to \$150,000, depending on the option selected; staff time is estimated to be between 150 and 650 hours. Approximately \$115,000 has been set aside in the fiscal year 2021-22 budget to provide communication support for this project. These funds would be sufficient to implement public engagement options two and three, however the first option would require additional funding in the fiscal year 2022-23 budget.

### **Next Steps**

If authorized, staff will execute the agreement amendments and begin work on the Encinas Creek restoration alternatives. The project team will also continue implementation of the plan, including furthering the conceptual design alternatives for the roadway, trails, community vision spaces, coastal access and parking. As the implementation progresses, the [project's webpage](#) will be updated with pertinent information and reports.

Staff will proceed on the public engagement process based on the City Council's direction.

### **Environmental Evaluation**

In accordance with California Public Resources Code Section 21065, the action to award a professional services agreement for engineering design services does not constitute a "project" within the meaning of the California Environmental Quality Act in that it has no potential to cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment and therefore does not require environmental review.

### **Public Notification and Outreach**

This item was noticed in keeping with the state's Ralph M. Brown Act and it was available for public viewing and review at least 72 hours before the scheduled meeting date.

### **Exhibits**

1. City Council resolution



**RESOLUTION NO.**

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CARLSBAD, CALIFORNIA, AUTHORIZING THREE AGREEMENT AMENDMENTS FOR THE SOUTH CARLSBAD BOULEVARD CLIMATE ADAPTATION PROJECT AND ACCEPTING AND APPROPRIATING GRANT FUNDS

WHEREAS, on May 5, 2020, the City Council accepted the award of grant funds from the State Coastal Conservancy in the amount of \$498,075 for the South Carlsbad Boulevard Climate Adaptation Project ("Project"); and

WHEREAS, on May 7, 2020, the City Manager executed a Research Agreement in the amount of \$233,074 with the University of California to assist with the Project; and

WHEREAS, on June 17, 2020, a Professional Services Agreement in the amount of \$249,645 was executed between the city and GHD, Inc. for consulting services to assist with the Project; and

WHEREAS, during the implementation of the Project, the city and State Coastal Conservancy have determined that analysis of restoration alternatives for Encinas Creek in and adjacent to the project area is critical to roadway, trail and recreation area design; and

WHEREAS, the State Coastal Conservancy is awarding the city \$35,100 in additional grant funds; and

WHEREAS, there is adequate funding available for the restoration analysis through the use of project contingency funds, adjustment of research funds available for the Scripps Institution of Oceanography, and a grant augmentation from State Coastal Conservancy; and

WHEREAS, the Professional Services Agreement with GHD, Inc. requires an amendment in the amount of \$90,000 to execute the additional scope of services; and

WHEREAS, staff request execution of three amendments agreements and acceptance and appropriation of additional grant funds.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Carlsbad, California, as follows:

1. That the above recitations are true and correct.
2. That the City Council authorizes and directs the City Manager or designee to sign the State Coastal Conservancy Grant Agreement Amendment letter, attached hereto as Attachment A.

3. That the City Council authorizes and directs the City Manager or designee to sign the University of California Research Agreement Amendment, attached hereto as Attachment B.
4. That the City Council accepts the award of additional grant funds under the State Coastal Conservancy Grant Agreement in the amount of \$35,100 and authorizes the Deputy City Manager, Administrative Services, to appropriate the grant funds to the Environmental Management Department budget.
5. That the City Council authorizes and directs the City Manager, or designee, to sign the Professional Services Agreement Amendment with GHD, Inc. for additional work in the South Carlsbad Boulevard Climate Adaptation Project in the amount of \$90,000, attached hereto as Attachment C.

PASSED, APPROVED AND ADOPTED at a Regular Meeting of the City Council of the City of Carlsbad on the \_\_ day of \_\_\_\_\_, 2021, by the following vote, to wit:

AYES:

NAYS:

ABSENT:

\_\_\_\_\_  
MATT HALL, Mayor

\_\_\_\_\_  
FAVIOLA MEDINA, City Clerk Services Manager

(SEAL)

STATE OF CALIFORNIA  
**STANDARD AGREEMENT**  
 Std.2 (Grant - Rev 01/18)

AGREEMENT NUMBER <b>19-093</b>	AM. NO. <b>1</b>
TAXPAYERS FEDERAL EMPLOYER IDENTIFICATION NO. <b>95-6004793</b>	

THIS AGREEMENT, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2021 in the State of California, by and between State of California, through its duly elected or appointed, qualified and acting

TITLE OF OFFICER ACTING FOR STATE <b>Executive Officer</b>	AGENCY <b>State Coastal Conservancy</b>	, hereafter called the Conservancy, and
GRANTEE'S NAME <b>City of Carlsbad</b>		, hereafter called the Grantee.




The Grantee, for and in consideration of the covenants, conditions, agreements, and stipulations of the Conservancy hereinafter expressed, does hereby agree as follows:

The State Coastal Conservancy (“the Conservancy”) and the City of Carlsbad (“the grantee”) agree to amend their existing Agreement No. 19-093 as follows:

The amount of this agreement is increased to \$533,175 (five hundred thirty-three thousand one hundred seventy-five dollars).

All other terms and conditions of the existing agreement shall remain in effect.

The provisions on the following pages constitute a part of this agreement.  
 IN WITNESS WHEREOF, this agreement has been executed by the parties hereto, upon the date first above written.

STATE OF CALIFORNIA		GRANTEE			
AGENCY <b>State Coastal Conservancy</b>		GRANTEE (If other than an individual, state whether a corporation, partnership, etc.) <b>City of Carlsbad</b>			
BY (Authorized Signature) 		BY (Authorized Signature) 			
PRINTED NAME AND TITLE OF PERSON SIGNING <b>Mary Small, Interim Executive Officer</b>		PRINTED NAME AND TITLE OF PERSON SIGNING <b>Scott Chadwick, City Manager</b>			
ADDRESS & PHONE NUMBER <b>1515 Clay Street, 10<sup>th</sup> Floor Oakland, CA 94612 Phone: (510) 286-1015</b>		ADDRESS & PHONE NUMBER <b>1635 Faraday Avenue Carlsbad, CA 92008 Phone: (760) 602-4623</b>			
AMOUNT ENCUMBERED BY THIS DOCUMENT <b>\$35,100.00*</b>	PROGRAM/CATEGORY (CODE AND TITLE) <b>Local Assistance</b>	FUND TITLE/PROP NO. <b>Green House Reduction Fund/Safe Drinking Water, Water Quality and Supply...(Prop 84)</b>			I certify that this agreement is exempt from Department of General Services' approval.  Erlinda Corpuz Procurement and Contracts Manager
PRIOR AMOUNT ENCUMBERED FOR THIS AGREEMENT <b>\$498,075.00</b>	FUND ITEM <b>3760-101-60510008(B0622) = \$35,100.00* 3760-101-3228 = \$498,075.00</b>	CHAPTER <b>06 29/30</b>	STATUTE <b>2020 2018</b>	FISCAL YEAR <b>20/21 18/19</b>	
TOTAL AMOUNT ENCUMBERED TO DATE <b>\$533,175.00</b>	PROJECT NAME <b>South Carlsbad Boulevard Climate Adaptation Project</b>				
I hereby certify upon my own personal knowledge that budgeted funds are available for the period and purpose of the expenditure stated above.					
SIGNATURE OF ACCOUNTING OFFICER 			DATE		
<input type="checkbox"/> GRANTEE		<input type="checkbox"/> ACCOUNTING		<input type="checkbox"/> PROJECT MANAGER	
		<input type="checkbox"/> CONTROLLER		<input type="checkbox"/> STATE AGENCY	

**RESEARCH AGREEMENT, No. 21428-20195252**  
**MODIFICATION 01**

This Agreement is made by and between City of Carlsbad, a municipal corporation (“City”) with offices at 1635 Faraday Ave., Carlsbad, California 92008-7314, and The Regents of the University of California, a California Corporation having its principal office at 1111 Franklin Street, 5th floor, Oakland, California 94607-5200, on behalf of Scripps Institution of Oceanography at the University of California, San Diego campus (“UCSD”) located at 9500 Gilman Drive, La Jolla, California 92093-0210. City and UCSD shall each be referred to as a “Party” or, collectively, as “Parties”.

WHEREAS, it is in the mutual interest of City and University that research be conducted on a project entitled “The South Carlsbad Boulevard Climate Adaptation Project” (“Research Program”);

WHEREAS, City desires to financially support said Research Program at University;

NOW, THEREFORE, the parties agree as follows:

1 **RESEARCH PROGRAM DESCRIPTORS**

Principal Investigator: Mark A. Merrifield  
Agreement Type: Cost-Reimbursement  
Agreement Number: 21428-20195252  
Begin Date: April 17, 2020  
End Date: March 31, 2023  
Initial Total Funded Amount: \$233,074.00

2 **Modification to Initial Total Funded Amount:**

- 2.1 Exhibit 1 has been updated to include the revised budget.
- 2.2 The total funded amount is hereby reduced by \$39,544.00 and is now \$193,530.

The following authorized Party representatives have executed this Agreement, including all its terms and conditions.

THE REGENTS OF THE  
UNIVERSITY OF CALIFORNIA

THE CITY OF CARLSBAD

By:   
(signature)

By: \_\_\_\_\_  
(signature)

Name: Judy Cheng  
Title: Principal Contract & Grant  
Officer

Name: Scott Chadwick  
Title: City Manager

Date: 08/31/2021

Date: \_\_\_\_\_

UNIVERSITY OF CALIFORNIA, SAN DIEGO

DETAILED BUDGET REQUEST FOR THE PERIOD FROM 04/01/20 THROUGH 6/30/21

KR No.: epd 21428-2019

Agency: State Coastal (

Year: 1

SALARIES & EMPLOYEE BENEFITS:

Name and Payroll Title	* Monthly Salary Recharge Rate	Actual F/T Equivalent Person-Months Dedicated to Project	Total Salaries and Emp. Benefits Requested
<b>Mark Merrifield(PI)</b> Professor	No salary requested	0.00	\$0 salary \$0 fringe
<b>Adam Young</b> Assistant Professor Scientist	\$9,923	2.00	\$19,846 salary \$8,693 fringe
<b>Laura Engeman</b> Acad Program Manager Officer 3	\$7,202	2.35	\$16,925 salary \$7,345 fringe
<b>Robert Grenzeback</b> Staff Researcher Associate	\$5,717	2.00	\$11,434 salary \$5,008 fringe
<b>Lucian Parry</b> Marine Tech	\$5,104	2.00	\$10,208 salary \$4,471 fringe

\*Fringe Benefits are calculated based on approved Composite Benefit Planning Rates (CBR) at UC San Diego. The Composite Fringe Benefit (CBR) rate is an average of all eligible benefits applicable to an employee group. Each group is based on individual employee attributes which fall into a certain group. The composite fringe benefit rate is a percentage of the employee's gross salary based on which group they fall into.

TOTAL SALARIES & EMPLOYEE BENEFITS \$83,930

PROJECT SPECIFIC SUPPLIES, MATERIALS & OTHER EXPENSES: (ITEMIZE)

Publication \$0  
 PROJECT SPECIFIC: \$1,286  
 Project specific costs that include research telephones, tolls, voice and data communication charges, photocopying, faxing and postage are requested. Supply and expense items, categorized as project specific, and computer and networking services are for expenses that specifically benefit this project and are reasonable and necessary for the performance of this project.

TOTAL SUPPLIES, MATERIALS & OTHER \$1,286

TOTAL DIRECT COSTS \$85,216

INDIRECT COSTS: (based on modified total direct costs & negotiated rate with cognizant audit agency DHHS):

Rate: On-Campus

30.0%

\*Base:

\$85,216

\*Base is total direct cost less tuition remission and equipment.

INDIRECT COST \$25,565

TOTAL AMOUNT REQUESTED \$110,781

original **136,057** difference= \$25,276

UNIVERSITY OF CALIFORNIA, SAN DIEGO

DETAILED BUDGET REQUEST FOR THE PERIOD FROM 07/01/21 THROUGH 06/30/22

KR No.: epd 21428-20

Agency: State Coastal

Year: 2

SALARIES & EMPLOYEE BENEFITS:

Name and Payroll Title	* Monthly Salary Recharge Rate	Actual F/T Equivalent Person-Months Dedicated to Project	Total Salaries and Emp. Benefits Requested
Mark Merrifield(PI) Professor	No salary requested	0.00	\$0 salary \$0 fringe
Adam Young Assistant Professor Scientist	\$10,221	2.50	\$25,553 salary \$11,422 fringe
Laura Engeman Acad Program Manager Officer 3	\$7,454	0.50	\$3,727 salary \$1,666 fringe
Robert Grenzeback Staff Researcher Associate	\$5,917	1.20	\$7,100 salary \$3,174 fringe
Lucian Parry Marine Tech	\$5,283	1.20	\$6,340 salary \$2,834 fringe

\*Fringe Benefits are calculated based on approved Composite Benefit Planning Rates (CBR) at UC San Diego. The Composite Fringe Benefit (CBR) rate is an average of all eligible benefits applicable to an employee group. Each group is based on individual employee attributes which fall into a certain group. The composite fringe benefit rate is a percentage of the employee's gross salary based on which group they fall into.

TOTAL SALARIES & EMPLOYEE BENEFITS \$61,816

PROJECT SPECIFIC SUPPLIES, MATERIALS & OTHER EXPENSES: (ITEMIZE)

Publication \$1,000  
PROJECT SPECIFIC: \$837

Project specific costs that include research telephones, tolls, voice and data communication charges, photocopying, faxing and postage are requested. Supply and expense items, categorized as project specific, and computer and networking services are for expenses that specifically benefit this project and are reasonable and necessary for the performance of this project.

TOTAL SUPPLIES, MATERIALS & OTHER \$1,837

TOTAL DIRECT COSTS \$63,653

INDIRECT COSTS: (based on modified total direct costs & negotiated rate with cognizant audit agency DHHS):

Rate: On-Campus 30.0%  
\*Base: \$63,653

\*Base is total direct cost less tuition remission and equipment.

INDIRECT COST \$19,096

TOTAL AMOUNT REQUESTED \$82,749

original 97017 difference \$14,268

**UNIVERSITY OF CALIFORNIA, SAN DIEGO**

DETAILED BUDGET REQUEST FOR THE PERIOD FROM 04/01/20 THROUGH 03/31/23

KR No.: epd 21428-2019

Agency: State Coastal (

Year: **TOTAL**

**SALARIES & EMPLOYEE BENEFITS:**

Name and Payroll Title	* Monthly Salary Recharge Rate	Actual F/T Equivalent Person-Months Dedicated to Project	Total Salaries and Emp. Benefits Requested
<b>Mark Merrifield(PI)</b> Professor	See detail by year	0.00	\$0 salary \$0 fringe
<b>Adam Young</b> Assistant Professor Scientist	See detail by year	4.50	\$45,399 salary \$20,115 fringe
<b>Laura Engeman</b> Acad Program Manager Officer 3	See detail by year	2.85	\$20,652 salary \$9,011 fringe
<b>Robert Grenzeback</b> Staff Researcher Associate	See detail by year	3.20	\$18,534 salary \$8,182 fringe
<b>Lucian Parry</b> Marine Tech	See detail by year	3.20	\$16,548 salary \$7,305 fringe

\*Fringe Benefits are calculated based on approved Composite Benefit Planning Rates (CBR) at UC San Diego. The Composite Fringe Benefit (CBR) rate is an average of all eligible benefits applicable to an employee group. Each group is based on individual employee attributes which fall into a certain group. The composite fringe benefit rate is a percentage of the employee's gross salary based on which group they fall into.

TOTAL SALARIES & EMPLOYEE BENEFITS \$145,746

**PROJECT SPECIFIC SUPPLIES, MATERIALS & OTHER EXPENSES: (ITEMIZE)**

Lab Supplies See detail by year \$1,000  
PROJECT SPECIFIC: \$2,123

Project specific costs that include research telephones, tolls, voice and data communication charges, photocopying, faxing and postage are requested. Supply and expense items, categorized as project specific, and computer and networking services are for expenses that specifically benefit this project and are reasonable and necessary for the performance of this project.

TOTAL SUPPLIES, MATERIALS & OTHER \$3,123

TOTAL DIRECT COSTS \$148,869

**INDIRECT COSTS: (based on modified total direct costs & negotiated rate with cognizant audit agency DHHS):**

Rate: On-Campus See detail by year

\*Base:

\*Base is total direct cost less tuition remission and equipment.

INDIRECT COST \$44,661

TOTAL AMOUNT REQUESTED \$193,530

difference from original \$39,544

**AMENDMENT NO.1 TO AGREEMENT FOR CONSULTANT SERVICES TO ASSIST IN THE  
IMPLEMENTATION OF THE SOUTH CARLSBAD BOULEVARD  
CLIMATE ADAPTATION PROJECT  
GHD INC.**

This Amendment No.1 is entered into and effective as of the \_\_\_\_\_ day of \_\_\_\_\_, 2021, amending the agreement dated June 17, 2020 (the "Agreement") by and between the City of Carlsbad, a municipal corporation, ("City"), and GHD, Inc., ("Contractor") (collectively, the "Parties") for implementation of the South Carlsbad Boulevard Climate Adaptation Project.

**RECITALS**

A. The Parties desire to alter the Agreement's scope of work to include a study of Encinas Creek restoration; and

B. The Parties have negotiated and agreed to a supplemental scope of work and fee schedule, which is attached to and incorporated by this reference as Exhibit "A", Scope of Services and Fee.

C. The Parties desire to authorize the City Manager to execute future amendments to the agreement.

NOW, THEREFORE, in consideration of these recitals and the mutual covenants contained herein, City and Contractor agree as follows:

1. In addition to those services contained in the Agreement, as may have been amended from time to time, Contractor will provide those services described in Exhibit "A". With this Amendment, the total annual Agreement amount shall not exceed three hundred thirty-nine thousand six hundred and forty-five dollars (\$339,645).

2. City will pay Contractor for all work associated with those services described in Exhibit "A" on a time and materials basis not-to-exceed ninety thousand dollars (\$90,000). Contractor will provide City, on a monthly basis, copies of invoices sufficiently detailed to include hours performed, hourly rates, and related activities and costs for approval by City.

3. Contractor will complete all work described in Exhibit "A" by June 16, 2023.

4. The City Manager is authorized to amend the agreement's scope of services if the dollar amount of such amendment does not exceed the City Manager's authority described in CMC 3.28.040(C)(7).

5. All other provisions of the Agreement, as may have been amended from time to time, will remain in full force and effect.

6. All requisite insurance policies to be maintained by Contractor pursuant to the Agreement, as may have been amended from time to time, will include coverage for this Amendment.



7. The individuals executing this Amendment and the instruments referenced in it on behalf of Contractor each represent and warrant that they have the legal power, right and actual authority to bind Contractor to the terms and conditions of this Amendment.

CONTRACTOR  
GHD, Inc., a California corporation

CITY OF CARLSBAD, a municipal corporation of the State of California

By:

*IVER SKAVDAL*

(sign here)

Iver A. Skavdal, President

(print name/title)

By:

Matt Hall, Mayor

ATTEST:

By:

*J. Duncan Findlay*

(sign here)

J. Duncan Findlay, Secretary

(print name/title)

for Barbara Engleson, City Clerk

If required by City, proper notarial acknowledgment of execution by Contractor must be attached. If a corporation, Agreement must be signed by one corporate officer from each of the following two groups:

Group A  
Chairman,  
President, **or**  
Vice-President

Group B  
Secretary,  
Assistant Secretary,  
CFO **or** Assistant Treasurer

**Otherwise**, the corporation must attach a resolution certified by the secretary or assistant secretary under corporate seal empowering the officer(s) signing to bind the corporation.

APPROVED AS TO FORM:

CELIA A. BREWER, City Attorney

BY:

*[Signature]*

Assistant City Attorney

**EXHIBIT "A"****SCOPE OF SERVICES AND FEE****South Carlsbad Blvd Climate Adaptation Project – Las Encinas Creek Restoration Concepts**

Outlined below is a scope of services to advance the design development of two managed retreat and restoration concepts being conceived for the Las Encinas Creek Vision Area. These concepts were previously presented to the Project team and partners as the 1) *Let it Go* and 2) *Phased Retreat options*. Both alternatives include the relocation of South Carlsbad Blvd to the existing northbound corridor; however, the timeframe for the removal of the southbound corridor infrastructure (roadway fill prism, bridge, rock revetment) differs.

The *Let it Go* alternative would remove southbound South Carlsbad Blvd infrastructure immediately to re-establish a more natural cross-shore gradient and morphological processes in hopes of sustaining a coastal pocket beach, dune, and dune-slack wetland habitats. Removal of this infrastructure will result in morphological changes to the system seasonally, episodically and over longer time scales as water levels rise. The longevity and evolution of restored features with increasing water levels is a primary question within this alternative that this proposal seeks to help provide further clarity.

The *Phased Retreat* alternative would either leave in place or partially remove the southbound South Carlsbad Blvd infrastructure for interim passive or active recreational uses until coastal hazards overwhelm the repurposed space. Landward of the southbound roadway, both alternatives would restore the backshore seasonally brackish tidal wetlands and freshwater riparian slack pond system through grading and revegetation. To support restoration design and aide in the decision making between these two options, GHD proposes to undertake the following scope of services:

- Assess tidal, freshwater and groundwater influences
- Fill data gaps identified in the previous phase
- Develop a numerical model of freshwater flow and flood events
- Characterize the coastal processes that influence the site form/function; and
- Develop conceptual designs for two (2) alternatives

**Task 1: Project Management and Meetings**

Work under this task includes time for contract administration and quality control reviews of all submittals. GHD staff will attend up to three (3) meetings with City and Coastal Conservancy. Meeting schedule and objectives will be determined once authorized. This does not include time for meeting coordination or communications with other stakeholders.

**Task 1 Deliverables:** *Draft work products will be shared at the meetings to solicit preliminary feedback.*

**Task 2: Site Assessment**

The purpose of this task is to gather and integrate supplemental site conditions data and perform hydraulic and geomorphic analysis to inform the conceptual design.

**Sub-Task 2.1: Topographic Survey and Habitat Mapping**

GHD will conduct two (2) days of topographic and vegetation surveys to characterize existing conditions. Existing data will be integrated with newly collected data to support hydraulic modeling, monitoring, and wetland design. Habitat mapping will improve resolution of existing and inaccurate data between the railroad prism and northbound S. Carlsbad Blvd and better define bare earth elevations and ecotone transition zones. Information gathered will be integrated into a restoration base map to support design.

**Sub-Task 2.2: Encinas Creek Hydraulic Analysis**

GHD will expand the existing FEMA HEC-RAS model from the railroad crossing to the ocean. The model will be utilized to characterize current peak flood conveyance through the corridor over the current and future range of tidal conditions. In conceptual design, GHD will use the hydraulic model to evaluate grading and flow alignments for restoration alternatives and evaluate the potential for structural scour at the modified northbound S. Carlsbad Blvd bridge during periods of peak discharge. Modeled inflows and tidal boundary conditions will be obtained from the FEMA FIS. Modeling inputs, results and recommendations for design will be presented in the technical memorandum (Task 3).

**Sub-Task 2.3: Monitoring of Flood, Seasonal and Tidal Wetland Hydrology (Optional)**

Under this task GHD would install and maintain a water level monitoring stations at three (3) locations to characterize tidal and surface water influences, and the depth and salinity of groundwater in the project area. Continuous and synoptic water and salinity measurements would be conducted over two (2) 6-week periods representative of wet and dry season conditions. Monthly and up to 4 event-based measurements would be collected to characterize flood and seasonal groundwater recession.

Data obtained from this task will: 1) help calibrate the hydraulic model, 2) increase the understanding of the existing vegetation dependency on surface/groundwater hydrology and 3) inform restoration design on habitat transgression. The seasonality of this task could hold-up progress on other tasks and is therefore considered an optional task.

**Sub-Task 2.4: Shoreline Response Assessment**

To support design and selection of a preferred restoration approach, GHD will develop conceptual models of system evolution for each alternative. To inform projections of future conditions, GHD will develop conceptual shoreline response models by gathering and integrating historical and reference site data with available CoSMoS coastal erosion predictions and site conditions data (Tasks 2.1 – 2.3). Impacts associated with both sea level rise and episodic events will be considered.

***Task 2 Deliverables:*** Methods and results from above sub-tasks will be summarized in the Technical Memorandum (Task 3).

**Task 3: Conceptual Design and Technical Report****Sub-Task 3.1: Conceptual Design Drawings**

Following the site assessment (Task 2), GHD will prepare draft concepts identifying design objectives, opportunities and limitations, site grading, infrastructure modification and expected habitats. GHD will prepare two conceptual design drawing sheets (plan and cross section) for each alternative. Conceptual designs will be developed for each alternative to include proposed grading, infrastructure modifications and habitat types shown schematically in plan view and cross-section to convey the design intent.

**Sub-Task 3.2: Alternative Habitat Evolution and Wetland Conversion Assessment**

For each alternative, shoreline response elements identified in Task 2.4 will be utilized to perform a spatial conversion analysis to characterize expected habitat evolution and wetland/upland ecotone response under three scenarios 1) constructed, 2) mid-century SLR and 3) late-century SLR. Each of these scenarios will be compared to existing conditions. The habitat acreages will be quantified to compare/contrast between the alternatives.

**Sub-Task 3.3: Technical Memorandum**

GHD will summarize the site assessment (Task 2) sub-tasks and present the conceptual designs as text and graphics in a brief technical memorandum. The following will be included:

- Summarize information above
- Description of both alternatives with graphics
- Describe evolution of shoreline and habitat types
- Next steps

**Task 3 Deliverables:** *Draft and Final Technical Report*

**Budget**

Tasks and associated costs are summarized in the table below.

<b>Task</b>	<b>Description</b>	<b>Fee Estimate</b>
<b>Task 1</b>	<b>Project Management and Meetings</b>	<b>\$ 5,000</b>
<b>Task 2</b>	<b>Site Assessment</b>	
<b>Sub-Task 2.1</b>	<b>Topographic Survey and Habitat Mapping</b>	<b>\$ 10,000</b>
<b>Sub-Task 2.2</b>	<b>Encinas Creek Hydraulic Analysis</b>	<b>\$ 15,000</b>
<b>Sub-Task 2.3</b>	<b>Monitoring of Flood, Seasonal and Tidal Wetlands Hydrology</b>	<b>\$ 15,000</b>
<b>Sub-Task 2.4</b>	<b>Shoreline Response Assessment</b>	<b>\$ 10,000</b>
<b>Task 3</b>	<b>Conceptual Design and Technical Report</b>	
<b>Sub-Task 3.1</b>	<b>Conceptual Design Drawings</b>	<b>\$ 10,000</b>
<b>Sub-Task 3.2</b>	<b>Alternative Habitat Evolution and Wetland Conversion Assessment</b>	<b>\$ 15,000</b>
<b>Sub-Task 3.3</b>	<b>Technical Report</b>	<b>\$ 10,000</b>
	<b>TOTAL:</b>	<b>\$90,000</b>