LMU|LA Center for Urban Resilience

Mr. John Nachbar City Manager City of Culver City 9770 Culver Blvd. Culver City, CA 90232

March 27, 2019

Revised Proposal Culver City Coyote *(Canis latrans)* Study & Management Program

Dear Mr. Nachbar,

Thank you for the opportunity to submit a revised proposal for your consideration. We very much enjoyed meeting you, your team and the public on September 26th and March 13th. At both meetings, we presented information and also listened to the concerns of the various stakeholders. We have incorporated their concerns into our plan and scaled the interventions to reflect the expressed priorities. Our team is eager to collaborate on this project and provide services that will enhance your existing coyote management initiative. We understand the complex nature of funding these types of projects and are presenting this proposal and budget as a general scope for additional consideration. As per our conversation, I have removed the University Overhead Charges (38.5%) as you have reported that the City does not typically pay overhead. In addition, we are able to provide partial services now and seek additional funding collaboratively. The budget remains general as it my understanding that Culver City will draw up the contract and then our contracts office at LMU will then review it for signature.

The immediate work this spring (Year 1) is focused on establishing the characteristics of the site and helping the City identify potential problem coyotes. The results of these first elements can inform the plan for future work. Below please find the amended proposal and general budget.

Introduction

Long-term wildlife management solutions are most effective when informed by an integrated methodology that is based on site-specific biophysical animal data plus educational outreach and social surveys within the target community. The Loyola Marymount University Center for Urban Resilience (CURes) has been pioneering in its integrated approach to wildlife management through the use of a consortium of professional wildlife scientists, social scientists and educational experts.

Dr. Eric G. Strauss, LMU President's Professor and Executive Director of the Center for Urban Resilience will oversee The Culver City Project. He brings a diverse team of wildlife, education and social science specialists that have several decades of experience assessing and mitigating coyote/human management issues in New England and cities in the Los Angeles area. Most recently, our team has been working in Long Beach where we are completing a three-year study and developing a management plan for their coyote population. We are currently collaborating with scientists at The National Park Service, Arizona State University and The Conservation Agency in Rhode Island in order to bring the most cost-effective and useful remote sensing tools to the project in Culver City.

Project Overview

The proposed management plan involves a *three-tiered* approach that is divided into increasingly longer time courses. This organization allows us to tackle immediate management challenges for Culver City and to then develop preventative strategies to help avoid future human-coyote conflicts.

Short-term - identify problem coyotes, fix fence holes, interview key stakeholders:

This phase of the project addresses the immediate concerns of stakeholders and focusses on the identification of problem coyotes, addressing travel corridors used by coyotes and establishes baseline population demographics. Stakeholder interviews will help establish a baseline understanding of the governance and management challenges. These project elements will begin immediately and continue throughout the study period.

Mid-term – determine coyote behavior and demographics, better understand public perceptions and knowledge regarding coyotes:

This phase of the work begins in Year 1, but ramps up considerably in Year 2 and serves as the basis for further management plan development. During this phase of the project, the behavioral ecology of the coyotes using Culver City will be established. A social survey will be developed and implemented, informed by the interviews from Year 1. These data become the basis for making predictions about future coyote hotspots so that those communities can be targeted for outreach, educational and enhanced monitoring activities. *Long-term* - collaborate with other coyote researchers, involve the community in the science:

Because coyotes are so mobile, our team is convinced that effective long term management of coyotes requires a coordinated approach that reaches across local political boundaries. With help from Culver City officials, we intend to engage adjacent cities and other research scientists in order to build an efficient network for information exchange. This phase of the project will include public workshops, schools-based programs and coordinated science meetings. The results will likely provide a generalized model of best practices that becomes a an important guide for future management activities in Culver City and beyond.

The proposed three to five-year study will focus in the first year on a review and assessment of existing data relating to coyote distribution and activity that has already been recovered by city wildlife management professionals. This assessment will be augmented through additional data recovery using game camera analysis and the assessment of coyote dietary components through scat analysis. Preliminary site selection and pre-baiting for potential coyote capture and fitting of radio-telemetry collars and/or remote sensing technologies installation will also be conducted during the first year of the study.

Concurrent with the collection of biophysical coyote data during the first year will be the initiation of project activities directed towards human social factors affecting coyote management. These activities will include key informant interviews, initial neighborhood educational initiatives and the identification and recruitment of key teachers working at community schools.

Proposed total cost for the first year of these project activities will be \$70,000.00.

Year two of the proposed study will focus on remote tracking of target study site coyotes. A domestic cat field study component of the project will also be implemented at and around coyote activity and trapping sites. In addition to continuing certain social science initiatives initiated during year one, school curriculum development tasks will be initiated, and a stakeholder survey will be developed based on information gathered in year one. Field research activities associated with the baiting, trapping and mapping of target coyotes will require labor-intensive on-site field activities in addition to equipment purchases.

Proposed total cost for year two project activities will be \$70,000.00.

Year three of the proposed study will include the continuation and finalization of field game camera analysis, coyote radio telemetry/remote sensing data collection and analysis, plus completion of the domestic cat study. The stakeholder surveyed will be implemented, and all other components of the human social factor sections of the study will be finalized. The results of the study will be analyzed and discussed in a comprehensive final study report, which will contain specific coyote management recommendations for present and predicted coyote/human interactions. Proposed total cost for the third (final) year of project activities will be \$70,000.00.

Description of Management Program Elements

Biophysical:

Game Camera Analysis – establish basic population structure and movements in key hotspot locations

Dietary Analysis – establish feeding preferences and locate "problem" coyotes *Domestic Cat Movement Patterns* – compare patterns of movement in different neighborhoods in order to assess risk

Human Social Factors:

Key Informant Interviews – establish core history and outcome expectations and prepare community survey

Social Surveys – establish picture of community perspectives and expected outcomes *Curriculum for Schools* – prepare special module of *Urban EcoLab* for use in Culver City (middle/high School)

Teacher Professional Development – workshops for curriculum engagement *Public Workshops* – information exchange and updates to public, plus backyard management suggestions

Project Task Timeline:

Research Elements	Year 1	Year 2	Year 3	Total	
Biophysical (Coyote Behavior)					
Site Assessment	Х				
Game Camera Analysis	Х	Х	Х		
Dietary Study	Х	Х			
Remote Sensing Study		Х	Х		
Cat Study		Х	Х		
Human Social Factors					
Key Informant Interviews	Х				
Stakeholder Surveys		Х	Х		
Informal Education Initiative	Х	Х	Х		
Curriculum in Schools		Х	Х		
Key Teachers Engagement	Х	Х	Х		
Public Workshops (2/year)	Х	Х	Х		
Yearly Cost	\$70,000	\$70,000	\$70,000		
Total Cost				<mark>\$210,0</mark>	<mark>00</mark>

Project Cost

The total proposed cost of the three-year coyote management program is:

Year 1:	70,000.00
Year 2:	70,000.00
Year 3:	70,000.00
3-Year Total Cost:	210,000.00

The figures quoted above are general. The scope and extent of the study are, of course, subject to the needs and resources of Culver City. We are eager to collaborate with you on a timeline and support scale to meet your present needs and future expectations. We look forward to meeting with you and considering specific aspects of these options. After which, we can develop a formal proposal though our Office of Sponsored Programs and provide resumes, etc. for your consideration and action.

Sincerely,

Eric G. Strauss

Dr. Eric G. Strauss, PhD President's Professor, Biology Executive Director, LMU Center for Urban Resilience <u>Eric.Strauss@lmu.edu</u> <u>https://academics.lmu.edu/cures/</u>