

SoCal Urban Wildlife Refuge Project

Project Proposal Information

This document provides background on the SoCal Urban Wildlife Refuge Project, operated by the San Diego National Wildlife Refuge Complex. As a potential partner in this work, we encourage you to become familiar with our work, including the project goals and the standards by which we measure outcomes. Our funding considerations include the extent to which a potential partner's program aligns with the SoCal Urban Wildlife Refuge Project goals and the U.S. Fish & Wildlife Service's Standards of Excellence for Urban National Wildlife Refuges.

SoCal Urban Wildlife Refuge Project Background

From the coastal hills in Ventura County, along the iconic Los Angeles River and south to beaches and valleys in San Diego, the SoCal Urban Wildlife Refuge Project reaches deep into the urban core of Southern California. Our dream is to infuse new and diverse urban audiences with the belief that conserving wildlife and habitats, whether in their neighborhood or within national wildlife refuges across the country, is essential to sustaining healthy human communities.

Through outdoor learning, service and stewardship, conservation-based jobs for disadvantaged youth, and enjoyment of being exposed to nature, we aim to build an urban constituency that supports the mission of the U.S. Fish and Wildlife Service and the National Wildlife Refuge System.

Additional Resources

We suggest you review the following materials to develop a more complete understanding of our work, the project and the change we seek to foster and support.

Resource	Link
Project Home Page	https://www.fws.gov/refuge/san_diego_bay/urban.html
Original Project Proposal Briefing	https://www.fws.gov/urban/refugepdfs/socalurbanwildliferefugetprojectsummary.pdf
Original FWS Project Award to San Diego National Wildlife Refuge Complex Announcement	http://refugeassociation.org/2014/08/san-diego-national-wildlife-refuge-complex-wins-1-million-in-urban-wildlife-refuge-challenge/
2014-2015 Project Report	https://www.fws.gov/refuge/san_diego_bay/urban.html

For questions about the SoCal Urban Wildlife Refuge Project, contact Chantel Jimenez at chantel.jimenez@fws.gov.

SoCal Urban Wildlife Refuge Project

Project Proposal

Please respond to each of the areas described below by addressing the stated criteria, and briefly offering any additional, relevant information about the proposed program.

Program proposals should not exceed 10 pages in length, beginning with the current page.

Organization Name:	Zoological Society of San Diego (doing business as San Diego Zoo Global)		
Program Title:	Wildlife Rangers		
Program Timeframe:	June 2017 – June 2018		
Total Amount Requested:	\$55,140		
Contact Person:	Kelly Craig, Associate Director, Corporate and Foundation Relations		
Contacts:	email	kcraig@sandiegozoo.org	telephone (619) 744-3328

1. Challenge

Describe the challenge, or barrier, to which the program is responding.

Include a brief description of the audience affected (target audience), the challenge or barrier faced by that audience, data that illustrates the need for the program, and information that ties this program to the goals of the SoCal Urban Wildlife Refuge Project.

A recent study (Aziz and Said, 2012) concluded that “childhood nature experience opportunities have decreased and indoor technological activities have increased.” The opportunity as a child to connect to nature is crucial, because it promotes early environmental stewardship that encompasses pro-environmental values retained into adulthood. Our main program purpose is to connect students and families to their local natural areas with the intent to engender stewardship for local wildlife.

During the past three decades, researchers found steep declines in adolescents’ willingness to engage in conservation behaviors, such as reducing their resource usage. In addition, they found that adolescents were more likely to support consumer and government responsibility to protect the environment than to take personal action. We are trying to change this recent trend by bringing fun, interactive assembly and classroom programs to local schools and YMCAs to increase young students’ interest in taking personal action for the environment. The program will culminate with a field visit to a local National Wildlife Refuge.

Our first target audience is the summer camp program of South Bay YMCAs, with campers almost exclusively from communities surrounding the San Diego Bay National Wildlife Refuge. A high percentage of these campers come from low-income families, typically with little or no association with their local natural areas. Our second target audience is K-6 schools in the South Bay School District, of which 85.5% of the students in the district last year were English learners, foster youth, or eligible for free/reduce-price meals. Again, due to the low-socioeconomic levels of their families, the students rarely have the chance to visit natural areas. Busy work schedules of both parents, lack of transportation, child preference for indoor gaming, and parental fears of their children in the open outdoors are some of the many challenges in connecting urban students to nature.

Successful conservation efforts require community awareness and support, and perhaps our most important role in local conservation comes through our community outreach efforts. To raise public awareness about our county’s fragile wild lands, we offer to introduce schoolchildren to the wonderful diversity of habitats found just outside their backdoor and to tell the stories of life to be discovered in them. Our hope is that the students will enjoy exploring their local wild places, learn about San Diego’s habitats, and help to ensure the future of our local wildlife.

The YMCAs focus their work in three key areas—nurturing the potential of children, helping people live healthier, and supporting their neighbors—all critical elements in strengthening communities. SDZG proposes to assist the YMCA in bringing about meaningful change in individuals and communities by teaching the children about stewardship, responsibility and engagement. Our program will address these key areas and work to connect urban children with nature.

2. Audience in Detail

Describe the audience(s) that your program will target.

Provide a detailed description of the audience or audiences you will target. This should include key demographics (age, gender, ethnicity, socio-economic status, school descriptions if relevant, etc.). Describe changing demographics, if present, that hasten need for the program. Note: We recommend reviewing the SoCal Urban Wildlife Refuge Project focus, specific to target audiences, for alignment with your proposal.

During the summer months of 2017, we will bring our successful assembly program to ten YMCA sites. Eight of the sites are returnees from last summer: Border View, Cameron, Copley/Price, Davis, Jackie Robinson, Loma Verde, McGrath, National City and San Ysidro. The two sites added this summer will be: Mission Valley and Toby Wells.

The targeted cities/communities for the school year include: National City, Chula Vista, San Ysidro, Santee, Rancho, La Mesa, mid-city San Diego, City Heights, Diamond community/ Logan Heights. The demographics (top two ethnicities/median household income) for four of these representative areas are as follows (compared to CA state demographics of: White: 52%, Hispanic 39%; \$64,500):
San Ysidro: Hispanic 92%, White 3%; \$44,945
National City: Hispanic 64%, Asian 20%; \$43,377
City Heights: Hispanic 59%, White 14%, \$39,343
Logan Heights: Hispanic 87%, White 6%, \$28,445

According to the Pew Research Center, San Diego County is among 78 counties in the nation that have turned majority-minority since 2000; with San Diego experiencing more than an 8% change during the past 15 years. "Young children are on the leading edge of the demographic shift. Minorities this Fall are expected to make up 51% of public school students in grades pre-K through 8th grade." (Pew Research Center 2015) The relevance of this majority-minority shift in school demographics is important to our environmental education efforts because it exemplifies the need to know and understand our audience.

A new poll (Latino Decisions, 2015) finds that Latinos in the US are deeply concerned about the environment, with 85% of those surveyed responding that "reducing smog and air pollution is extremely or very important" for the environment. This finding aligns with a 2015 Gallup Survey that reported 66% of Latinos believe human activities are to blame for global warming, compared to 37 percent of Whites; and was further supported by a similar survey conducted in conjunction with The New Times and Stanford University.

Finally, Plos One, a peer-reviewed journal designed to communicate primary scientific research, presented results from a study investigating how time outdoors appeared to impact African-American and Hispanic students more than Caucasian students. "Outdoor education improves minority students' ecological knowledge and cognitive skills"—two measures of environmental literacy and the same cause and effect our program hopes to accomplish. When we teach students about the outdoors and help them learn cognitive skills in nature—a process that involves environmental attitudes and behaviors—they also learn to analyze and solve problems, perhaps for the benefit of nature.

Our driving effort will be to align San Diego Zoo Global's education program with the goal of the Urban Wildlife Refuge Program to engage urban children with their surrounding natural areas through wildlife conservation.

3. Strategy

Describe the strategy your organization will use to address the challenge.

Briefly describe who will be involved in implementing your program, your strategy to effect change, and how this will result in a positive impact on the challenge described above. Provide evidence of past effectiveness with similar efforts.

Our program will be implemented by San Diego Zoo Educators, Program Aides, Zoo Animal Ambassadors, Dr. Zoolittle's Magic & Animals; with valued assistance from Park Rangers at Sweetwater Marsh and Camp Teachers from the South Bay YMCA sites.

Our strategy to effect change is to immerse students in the fascinating world of a Wildlife Ranger by letting them participate in techniques used in the field—employing camera traps and keen observational skills, meeting native endangered Zoo animal ambassadors, and tracking California condors via radio telemetry equipment to determine safe locations for establishing prospective wildlife refuges.

Our program components integrate with classroom learning to ensure the participants have a reference for the concepts presented and yet stretch their knowledge to the next level. The program is aligned with Next Generation Science Standards. Our activities and program content focus on the following standards: Earth & Human Activity and Matter & Energy in Organisms and Ecosystems.

Our program will result in positive impact in the following ways: (1) increasing student empathy for wild places by exposing them to valuable lessons and enjoyable activities that make learning fun; (2) raising student passion for wildlife as they meet our Zoo animal ambassadors; (3) inspiring change by motivating students to protect the future of their local natural areas as provisional Refuge Researchers; and (4) stimulating interest in STEM careers by exposing students to field research careers that are attainable and rewarding.

The San Diego Zoo's Education Department has been in operation for 100 years, expanding from a fledgling education program that served a few thousand individuals to now implementing numerous programs for a variety of ages. Our education programs currently serve more than 250,000 students each year. The effectiveness of our efforts is evidenced in the large number of students and teachers we reach, and the number of participants who return to our programs year after year. The greatest testimony to the impact of our teaching is the number of former students who are now employed in areas of wildlife conservation around the globe.

Our similar program, which was implemented last year with the U.S. Fish and Wildlife Service for approximately 3,750 children, recorded great success with positive feedback from teachers and significant increases in students' knowledge as evidenced in the summative evaluation. Prior to our program, many students (approximately 155) recognized only the green sea turtle as one of San Diego's local animals and far fewer were even aware of the other species. After the program, considerably more students (approximately 35) recognized the lesser-known local species, pocket mouse, clapper rail and mountain yellow-legged frog. Other significant changes as depicted in the pre- and post-assembly surveys were: the students' increased understanding of a refuge, the job of a Wildlife Ranger and refuges as being critically important. Further, students were able to identify numerous ways they could help their environment; and many pledged to take conservation action.

4. Objectives

State measureable objectives to be achieved through this funded effort.

*Please provide both process objectives and outcome statements. **Process objectives** define quantifiable metrics by which progress can be determined. They should describe the key tasks and implementation of your program.*

***Outcome statements** define knowledge, attitudes, beliefs and/or abilities that will be realized by participants as a result of the program. Outcome statements should be defined such that they are measurable by your organization as a component of this funding award. Consider both cognitive (knowledge-related) and affective (values, choices) outcomes for your program.*

Process Objectives:

1. Summer 2017: Provide 1.5 hours of assembly instruction and 2 hours of field trip instruction to K-6 students at 10 selected YMCA sites. Student numbers will vary between 30 and 100 students per site, averaging about 650 YMCA campers from underserved areas mainly in the South Bay. All sites have a high diversity of students, with a minimum of 50% non-White (typically around 60+% non-White).
2. School Year 2017-2018: Provide 1 hour of assembly instruction to 10 schools, with an average of 525 students per school. Followed with 1 hour of classroom instruction and 2 hours of field trip instruction for approximately 1,400 5th-grade students from schools primarily based in South Bay. The student demographics in this area are 85% free/reduced-price meals, English learners and foster youth.

Outcome Statements:

1. Increase students' empathy for wild places by exposing them to valuable lessons and enjoyable activities that inspire change and motivate students to protect the future of their local natural areas (measured by student knowledge gain and behavior change on our pre- and post-survey evaluation).
2. Encourage students to return to the National Wildlife Refuge with their families by instilling familiarity and knowledge of the area; as well as personal knowledge of what elements to visit and how to share interesting facts while at the Refuge.

5. Program Design

Describe the program's design.

Please describe the program elements, how the program will be implemented, and how you will monitor the program throughout implementation to ensure it is being accomplished as planned—and that adjustments are made to meet your objectives where necessary. Include in your description any rationale for the program's design, and/or examples of the program's past performance. The program design should reflect the objectives stated in the previous section, such that there is reasonable expectation the objectives can be achieved.

Summer 2017: The Zoo's Education team will visit each of the ten YMCA sites to present an all-ages assembly that introduces students to the exciting adventures at a local National Wildlife Refuge. The visit will include fun interactive activities with Dr. Zoolittle, informative presentations by a Zoo Educator and an animal presentation. This 1.5-hour session will prepare the 3rd-5th grade YMCA children for a field trip to their local National Wildlife Refuge within the same week. At the refuge, the Zoo team will orient the children to the amazing resources at the Refuge, then split them into rotating groups to explore different stations at the Refuge, i.e., bird watching, plant identification, etc. Each child will receive a copy of *Walking Our Wild Places* coloring book.

School Year 2017-2018: The Zoo's Education team will bring a 3-part program—assembly, classroom program, and field trip—to 10 schools in South Bay. The all-school assembly will introduce the student body to their local wildlife and how Refuge Rangers protect these natural resources. The classroom program and field trip will be offered to the 5th-grade students. During these sessions, the students will receive an in-depth explanation of Wildlife Refuges and participate in hands-on opportunities to learn how they can support and protect wildlife.

The online curriculum supplementing the program will be available to all teachers in downloadable format on the San Diego Zoo's website. The curriculum enhances concepts learned, offers additional resources for the classroom, and aligns with State Science Standards. Our goal is to motivate students to adopt a lifestyle that respects our natural resources and makes smart choices for the future of our local natural resources.

This year's program, *Wildlife Rangers*, is based on the success of our program last year, with improvements suggested from the staff sort-down at the end of the Spring. Again, this year, we will include summative evaluations from teachers and students to help us fine-tune the program as we progress.

6. Urban Refuge Standards of Excellence

Please select each of the Fish & Wildlife Service Urban Refuge Standards of Excellence with which your program *significantly* aligns.

For more information on the Standards of Excellence, see <https://www.fws.gov/urban/soe.php>.

1	☒	Know and Relate to the Community Understand not only the geographical boundaries of a community, but know the community intimately enough to become part of the community fabric.
2	☒	Connect Urban People with Nature via Stepping Stones of Engagement Meet urban residents with varying degrees of nature-based skills on their own turf through a wide variety of nature-based programs.
3	☒	Build Partnerships Share resources and build formal and informal community partnerships with the common goals of land stewardship and conserving natural resources.
4	☐	Be a Community Asset Improve the quality of a community by providing expertise, time, space, jobs, and involvement in community-based projects.
5	☐	Ensure Adequate Long-term Resources Make sure that there is adequate and stable funding to support staffing, facilities, maintenance, operations, and changing needs.
6	☒	Provide Equitable Access Reduce barriers to access due to transportation and physical and financial limitations.
7	☒	Ensure Visitors Feel Safe and Welcome Educate visitors about what to expect and how to be safe in natural environments.
8	☒	Model Sustainability Set the standard for the sustainable use of resources and energy conservation, and promote biological diversity through day-to-day decisions and actions.

7. Evaluation

Describe how you will collect and analyze data to document your accomplishment of stated program objectives.

*Please describe how you will track and evaluate both process objectives and outcome statements. Your methods for measuring outcome statements should assess **changes** in program participants, which is typically accomplished through pre/post measures. Copy each objective from section 3 into the first column, and then provide information about how data will be accessed, how often data will be collected, and who will be responsible for data collection and analysis.*

Process Objective	Instrument for, or Approach to Measurement	Frequency of Data Collection	Person Responsible for Collection and Analysis
<u>Summer 2017</u> : Provide 1.5 hours of assembly instruction and 2 hours of field trip instruction to 10 selected YMCA sites serving K-6 students. Student numbers vary between 30 and 100 per site, averaging about 650 YMCA campers from underserved areas mainly in the South Bay. All sites have high diversity, with a minimum of 50% non-White (typically around 60+% non-White).	Input YMCA data (participation, demographics, student numbers, etc.) into database as each group confirms attendance at our program. We will use regional and community data from www.sandiegocounty.gov to maintain accuracy.	The database will be updated as each YMCA confirms, then reviewed at the completion of their program. All data will be compiled and analyzed upon completion of the <i>Wildlife Rangers</i> program.	San Diego Zoo Education Manager and selected Zoo Education Assistants.
<u>School Year 2017-2018</u> : Provide 1 hour of assembly instruction to an average of 525 students per school (10 schools), followed by 1 hour of classroom instruction and 2 hours of field trip instruction for about 1,400 5 th -grade students from schools primarily in South Bay. The student demographics in this area are 85% free/reduced-price meals, English learners and foster youth.	Input school data (participation, demographics, student numbers, etc.) into database as each school confirms attendance at our program. We will use regional and community data from www.sandiegocounty.gov to maintain accuracy.	Database will be updated as each school confirms, then reviewed once their program is completed. All data will be compiled and analyzed upon completion of the <i>Wildlife Rangers</i> program.	San Diego Zoo Education Manager and selected Zoo Education Assistants.
Process Objectives Evaluation: Supporting descriptions/information as necessary. To support the Wildlife Refuge Project focus on “demographically diverse, refuge adjacent populations” we will describe and track participation in key categories, and provide summary figures in our final report. Specifically providing counts for: total number of participants and total number of hours of participation; list of Title 1 schools that participate and their demographic description.			

Outcome Statements	Instrument for, or Approach to Measurement	Frequency of Data Collection	Person Responsible for Collection and Analysis
1. Increase students' empathy for wild places by exposing them to valuable lessons and enjoyable activities that inspire change and motivate students to protect the future of their local natural areas, as measured by student knowledge gain and behavior change on our pre- and post-survey evaluation.	<i>Formative evaluation</i> will utilize early feedback from participants (teachers, students, chaperones, Zoo staff and Refuge staff) in order to address any corrective actions that should be made throughout the program implementation. Data gathering will focus on whether the objectives were clearly communicated and accomplished, and if the program format was effective in conveying the subject matter to the students. Assessment techniques include conducting pre- and post-testing of students to measure gain in knowledge levels and potential behavior changes, utilizing multiple choice and one open-ended question. <i>Summative Evaluation</i> will produce the formal report outlining the project's impact assessment.	An informal formative evaluation will take place within the first two program implementations so that programmatic changes can occur in a timely fashion. A formal assessment will be accomplished through a pre-test, administered just prior to the program start; followed by a post-test after implementation of all program components (should occur within 2-3 weeks).	The San Diego Zoo Education Manager will be responsible for collecting input from all sources (teachers, staff, etc.) to make early program improvements. Zoo Educators will facilitate the pre- and post-tests. San Diego Zoo Education Manager and selected Zoo Educators will analyze data and share results in the final report.

2. Encourage students to return to the Refuge with their families by instilling familiarity and knowledge of the area; as well as personal knowledge of what elements to visit and how to share interesting facts while at the Refuge.	At the program conclusion, students will be asked if they would like to return to Refuge with their families; who thinks they will—if not, why not; and these responses will be recorded and tallied.	This will occur once for each student at the end of program.	San Diego Zoo Educators
Outcome Statements Evaluation: This year we will continue to exchange ideas with the Refuge staff for effective monitoring of knowledge and behavior change. Last year, the Rangers suggested a Reflections page in the field guide through which we were able to capture additional information about the program impact. The final evaluation will be available to any parties connected to the program; and will be included in the final grant report. Further, the results may be used in applications for future funding opportunities.			
In addition to the program-specific evaluation you will conduct and report in your annual report, do you agree to administer a subset of no more than 15 questions provided by the SoCal Urban Wildlife Refuge Project’s evaluator as a component of your pre/post testing, and submit individual participant responses in a spreadsheet for analysis (template will be provided)? Yes ☒ No ☐			

Please attach a detailed program budget to this proposal, using the following categories:

- Personnel
- Fringe Benefits
- Travel
- Equipment
- Supplies
- Contractual Services

- Construction
- Other

Include if applicable to your work:

- Indirect Charges
- Matching Contributions

**WILDLIFE RANGERS
SCHOOL PROGRAMS
DETAILED PROGRAM BUDGET
(FALL 2017-SPRING 2018)**

LINE ITEM	USFWS	SDZG Matching
Personnel and Fringe Benefits (all rates are burdened)		
<i>Zoo Education Lead</i> (Scheduling, training, educator resource) 30 hours x \$35/hour	\$1,050	
<i>Zoo Educators</i> Assembly: 10 schools (2 assemblies each) x 6 hrs. x \$35/hr. Classroom: 10 schools (4 classes each) x 6 hrs. x \$35/hr. Field Trip: 10 schools x 2 field trips each x 5.5 hrs. x \$35/hr.	\$8,050	
<i>Program Aides</i> Assembly: 10 schools x 5.5 hrs. x \$12/hr. Classroom: 10 schools x 5.5 hrs. x \$12/hr. Field Trip: 10 schools x 2 field trips each x 5.5 hrs. x \$12/hr.	\$ 2,640	
<i>Professional Services: Dr. Zoolittle</i> Assembly: \$175/assembly x 10 schools x 2 per school Classroom: \$175/class x 10 schools x 2 classes each session Field Trip: \$200/field trip x 10 schools	\$ 9,000	
<i>Project Coordinator</i> (Staff and project coordination, training, implementation, evaluation, scheduling) 120 hours x \$45/hour		\$5,400
<i>Website Graphic Designers</i> (4 hours x \$45/hour)		\$ 180
Supplies and Materials		
Assembly Props	\$ 500	
Classroom Supplies	\$1,000	
Field Trip Supplies:	\$1,500	
Travel		
Bus Transportation (Field trip visit x 20 buses x \$300 bus)	\$6,000	
TOTAL:	\$29,740	\$5,580

**WILDLIFE RANGERS
YMCA AFTER-SCHOOL PROGRAMS
DETAILED PROGRAM BUDGET
(JUNE 2017-AUGUST 2017)**

LINE ITEM	USFWS	SDZG Matching
Personnel and Fringe Benefits (all rates are burdened)		
<i>Zoo Education Lead</i> (Scheduling, training, educator resource) 20 hours x \$35/hour	\$ 700	
<i>Zoo Educators</i> Program @ YMCA: 10 sites x 3 hrs. x \$35/hr. = \$1,050 Field Trip: 10 YMCA groups x 5.5 hrs. x \$35/hr. x 2 Educators = \$3,850	\$4,900	
<i>Program Aides</i> Program @ YMCA: 10 sites x 3 hrs. x \$12/hr. = \$360 Field Trip: 10 YMCA groups x 5.5 hrs. x \$12/hr. = \$660	\$ 1,020	
<i>Professional Services: Dr. Zoolittle</i> Program @ YMCA (Magic & Animals): \$350/assembly x 10 assemblies = \$3,500 Field Trip: \$200/field trip x 10 YMCAs = \$2,000	\$ 5,500	
<i>Project Coordinator</i> (Staff and project coordination, evaluation) 80 hours x \$45/hour		\$3,600
Supplies and Materials		
Classroom Supplies	\$ 100	
Field Trip Supplies:	\$ 100	
Travel		
Bus Transportation (Field Trip visit x 10 buses x \$300/bus)	\$3,000	
TOTAL:	\$15,320	\$3,600

Program Subtotal	\$45,060	\$9,180
22.37 % overhead	\$10,080	
Total Requested/Total Matched	\$55,140	\$9,180
Total Program Cost	\$64,320	