National Leadership Grants - Museums

Sample Application MG-253401-OMS-23

Global Conservation Network

Amount awarded by IMLS: $442,176
Amount of cost share: $541,299

Global Conservation Network will provide training to zoo and aquaria professionals in facilitating collaborative species conservation planning processes. Up to 30 museum staff will receive formal mentoring during a 15 month program during which they will design and facilitate their own planning processes to benefit their collections and the wider conservation of linked species. The mentees will collaborate to develop a tool to monitor plan implementation and results, and an online planning tools library, both of which will be made accessible to the wider U.S. zoo and aquarium community. All mentees will receive training to be trainers themselves, which will provide capacity building support to the sector. This project will support a full time training officer who will deliver conservation planning workshop courses and manage the recruitment, delivery, and evaluation for a conservation assessment course. Project outcomes and impacts will be tracked to monitor improvements in U.S. zoo and aquarium planning processes and the impacts they have on the stewardship of species within their care.

Attached are the following components excerpted from the original application.

- Narrative
- Schedule of Completion
- Digital Product Plan
- Performance Measurement Plan

When preparing an application for the next deadline, be sure to follow the instructions in the current Notice of Funding Opportunity for the grant program and project category to which you are applying.

PROPOSAL NARRATIVE

US zoos and aquariums see the effective stewardship of threatened species as one of the world's most widespread, high priority conservation issues. The solution begins with more effective inter-organizational collaboration, demanding a scaling up of collaborative conservation planning competencies across the sector. This proposal addresses **Goal 3** of the National Leadership Grants for Museums through the delivery of a nationwide professional development program (**Objective 3.2**) resulting in the implementation of more effective, multi-stakeholder species conservation plans that model the management and use of collections (**Objective 3.1**) for the stewardship of threatened species worldwide.

1.0 PROJECT JUSTIFICATION

1.1 Field-wide need, problem and challenge the project will address and how it was identified

By 1987 the black-footed ferret was extinct in the wild. The last 18 individuals of this once widespread North American species were taken into captivity where they founded what was to become one of the world's most successful recovery projects (Santymire et al., 2014). Collaborative planning efforts involving agencies, organizations, tribes, universities, private landowners, and US Zoos (Livieri, 2011) have catalyzed actions resulting in more than 300 ferrets living back in the wild (CPSG, 2020), supported through ongoing captive breeding and release from North American zoos. This illustrates **the synergistic power of collaborative conservation efforts, and the critical stewardship role that zoos can play in caring for Life on Earth**.

Never before has there been such a critical need for the stewardship of species that compose the collections of US zoos and aquariums (now collectively referred to as US Zoos). **More than 1300 (EPA, 2022) of the 38,000 globally threatened species recognized as being endangered with imminent extinction are within the US alone.** The ex situ populations of many of these species are also in jeopardy (Lees and Wilcken, 2009), with only 44 of the 622 managed species programs within US Zoos currently considered as being self-sustaining (Wildt et al., 2019). Achieving the genetic and demographic health of these populations, and the contribution they can make to the long-term conservation of their species, depend on scientifically managed inter-institutional collaboration to exchange individuals or their genes between facilities and/or with wild populations (Lacy, 2013).

The pressing need for US Zoos to scale up their contribution to tackling the current global biodiversity crisis is not lost on the more than 180 million visitors to US Zoos annually (AZA, 2022a). The average visitor has a higher-than-expected knowledge of and concern for the natural world (Falk et al., 2007). **The public now expect these institutions to help protect the animals and habitats on which they depend** (AZA, 2022a).

US Zoos are determined to step up to this challenge. **The Association of Zoos and Aquariums (AZA) promotes integrated conservation planning** among its accredited 215 US-based member organizations. Over half of these member institutions (AZA, 2022b) are actively involved in AZA's Saving Animals From Extinction (SAFE®) programs designed to, *"…expand*[s] *capacity for cross-cutting and interdisciplinary conservation by AZA members"* (Chaefer and Schook, 2020). **These programs imbue the principles of a One Plan Approach** (Byers et al., 2013), considering, "…*all populations of a species…in an integrated, stakeholder-inclusive, science-based process".* (Association of Zoos and Aquariums, 2022). AZA's 42 Taxon Advisory Groups (TAGs) compliment this externally oriented stewardship role by examining, "…*the sustainability and conservation needs of entire taxa and…develop recommendations for population management and conservation"* (AZA 2022c) within US Zoo collections.

As with the black-footed ferret example, multi-stakeholder, **collaborative conservation planning is key to US Zoos fully realizing their species stewardship role, and the implementation of the One Plan Approach (see letter of support, Seattle Aquarium, Supportingdoc9.pdf).** Currently though, **collaborative conservation planning among zoos and between zoos and other actors is insufficient for these purposes** (Conde et al., 2013; Traylor-Holzer et al., 2018). AZA zoos and aquariums have themselves identified conservation planning as a high priority capacity need (see AZA letter of support, Supportingdoc1.pdf). Linked to this is a requirement for a cross-institutional system for monitoring program implementation and improving the planning process (S. Grow, AZA Vice President for Conservation and Science *pers comm.*)

To build this capacity, **the skill sets of US Zoo staff must be expanded to include the complex human dimension of facilitation, conflict resolution and collaborative conservation planning process design**. Strengthening multi-institutional collection planning skills would enable US Zoos to maximize the sustainability and conservation value of the species they support. **Embedding these skills more widely within US Zoos would foster enhanced intra- and inter-institutional partnerships** (see letter of support from St Louis Zoo, Supportingdoc8.pdf).

The IUCN Species Survival Commission's Conservation Planning Specialist Group (CPSG) has been supporting governments, non-governmental organizations and zoos and aquariums for more than 40 years to develop collaborative conservation planning processes that promote the recovery and sustainable management of threatened species (see letter of support Minnesota Zoo, Supportingdoc6.pdf). CPSG coined the term "One Plan Approach" and models this integrative philosophy within its planning practice, applying state-of-the-art social and biological science expertise to help stakeholders determine those interventions that will enable them to achieve their species program goals. The CPSG-led IUCN SSC *Guidelines on the Use of Ex situ Management for Species Conservation* (IUCN SSC, 2014) guide zoos in how to evaluate appropriate conservation roles for their captive collections (Traylor-Holzer, 2019). CPSG's *Species Conservation Planning Principles and Steps* (CPSG, 2020) provide a comprehensive framework on which all collaborative species conservation plans can be built.

Since 2017 more than 1000 conservation professionals have completed CPSG's *Facilitating Species Conservation Planning Workshops* training program, only 60 of whom have been from US Zoos. A pilot project to integrate this training into AZA professional development opportunities was undertaken in 2019 and there is a strong desire within AZA to significantly scale up this provision (see AZA letter of support, Supportingdoc1.pdf). For professionals who have completed the training, it has resulted in improved internal management and leadership capacities, zoo function, staff management and zoo program design, and participants' ability to lead on collaborative species planning processes (Bruyere et al., 2022). CPSG training has resulted in the development and implementation of conservation plans for US species of concern, including a SAFE program for the monarch butterfly (*Danaus plexippus*) (see letter of support, Cincinnati Zoo & Botanic Garden, Supportingdoc3.pdf), conservation plans for several species of oak tree, the snail kite (*Rostrhamus sociabilis*), the Southwestern pond turtle (*Actinemys marmorata*), and multiple internationally threatened species.

CPSG launched its Professional Development Path mentorship program in 2018. High-potential trainees are invited to participate in this intensive 15+ month program that includes formal training in collaborative planning process design and facilitation with mentor-supported practice. Interim results of this program provide proof of concept, with mentees-including the General Curator at Point Defiance Zoo & Aquarium (see letter of support, Point Defiance Zoo & Aquarium, Supportingdoc7.pdf)-now able to support improved

internal zoo and aquarium planning and make significant contributions to catalyzing conservation action for species within their native ranges.

Within the current project we propose to scale up institutional capacity for conservation planning (see letters of support Chicago Zoological Society, Supportingdoc2.pdf and Indianapolis Zoo, Supportingdoc5.pdf), promoting the One Plan Approach across the US Zoo community, targeting training and mentoring support primarily at AZA institutions actively involved in running SAFE programs and others leading on planning for the recovery of threatened species.

1.2 Target group and how they have been involved in planning

CPSG has a long-standing relationship with AZA which has recently identified collaborative conservation planning skills development as a priority (see AZA letter of support, Supportingdoc1.pdf). Dr. Candice Dorsey, Senior Vice President, Conservation, Management, and Welfare Sciences at AZA states that, *"In 2018, AZA's Professional Development Committee completed a needs assessment that identified conservation planning training as a priority for AZA members… CPSG is the right team to advance those skillsets."*

The primary target group for this capacity building project are the more than 100 AZA-accredited zoos contributing to AZA SAFE programs. US Zoos leading on their own species conservation programs linked to their collections are included within this target audience. For example, The Georgia Aquarium is keen to build its capacity for collaborative species conservation planning to enable it to maximize its impact on the recovery of threatened marine species connected to its collection (see Georgia Aquarium letter of support, Supportingdoc4.pdf). In addition, the training will be made available to US-based AZA zoos and aquariums needing to enhance collaborative practice to support the exchange of animals between collections to enhance collection sustainability as directed by AZA Taxon Advisory Groups (TAGs).

The US Zoo staff targeted by this project will be complimented by a smaller cohort of non-US Zoo course participants recruited from government, non-government and/or local community and tribal organizations involved in the conservation of SAFE species in the wild or in ex situ facilities. These non-US Zoo participants could come from within the US (where SAFE programs involve US species) or from other range countries. In this way, **capacity can be built across those organizations concerned with the conservation of the species and stronger collaborative relationships can be built between US Zoo staff and their partners**.

1.3 Ultimate beneficiaries for the project

By strengthening their collaborative practice, US Zoos will "*...improve core services*" (Yarrow et al., 2008, p6), for the US public, ensuring that the collections are sustainable and play a clearly defined role in species stewardship in the wild. US Zoos will be able to demonstrate improvements in the sustainable management of the species in their collection and the extent to which US Zoos are able to support species conservation in situ, through enhanced SAFE programs.

1.4 How the museum field will benefit from the project

The skills taught in CPSG training courses have wide-ranging benefits for the US Zoos involved and their ability to develop new partnerships and refine existing ones across the field. Improved interpersonal skills, conflict resolution, teamwork and collaborative planning design will all contribute to the development of more resilient organizations, better able to manage their collections and promote more participative work cultures within and across the sector. Through the 'train the trainers' program included within this project, the trainees who go on to be mentored will be well-placed to provide internal capacity development for the wider US Zoo community long after the project has ended (**Figure 1**). For the US Zoo staff selected, the

benefits will ramify throughout their careers, given the ever-present need for training in interpersonal skills facilitation, group problem solving, and planning. **All US Zoos will have full access to the training materials developed beyond the project timeframe for 2 years when content needs to be updated.**

1.5 How the project builds on existing theory and practice

A review of prior IMLS National Leadership Grants for Museums awarded to US Zoos indicates an understandable focus on the development of evidence-based procedures and data management processes to enhance the sustainable management of their collections. In 2020, for example, Lincoln Park Zoo was awarded a grant to create a, *"…collaborative platform that will facilitate data collection across institutions"* to improve the care and welfare of species within US Zoo collections. US Zoos now seek to go further to lead in the development of global conservation plans that unite multiple stakeholders around a common interest in conserving threatened species. For example, a recently awarded IMLS Grant (MG-249168-OMS-21) will see the development of a Global Species Management Plan for the Critically Endangered orangutan. The collaborative planning process will involve staff from CPSG as lead facilitators. Through the current proposal, this capacity for collaborative species conservation planning would be built internally so that more US Zoos can realize their conservation stewardship roles.

The collaborative skills developed by CPSG over the last 40 years are based on experience with and a deep understanding of how groups function, and how information and values can be combined to make effective, implemented species conservation plans (Westley and Miller, 2003). Evidence of CPSG's impacts on the recovery of threatened species through the catalytic consequences of collaborative planning are neatly captured by Bob Merz, Saint Louis Zoo, reflecting on the success of the American burying beetle (*Nicrophorus americanus*) reintroduction project. *"We discovered that the source of disagreement was often just a misunderstanding between us- sometimes about differing definitions for a single word…The workshop helped us realize that we were partners already."* (CPSG, 2020). CPSG now has quantitative evidence that these collaborative processes lead to improvements in the conservation status of species (Lees et al., 2021), with species stabilizing within ten years of the planning process and recovering after this point.

Although the facilitation and interpersonal skills necessary to design and lead on these collaborative processes are sorely lacking across the wildlife conservation community (Englefield et al., 2019) **we now have good evidence that our training can develop the confidence and competence necessary to put these skills into practice** (Bruyere et al., 2022). Through internal survey feedback of the 800 individuals who have completed our training program since 2018, approximately 50% of them have subsequently developed at least one species conservation plan.

2.0 PROJECT WORK PLAN: SPECIFIC ACTIVITIES AND SEQUENCE

Trainee recruitment

Recruiting trainees from the primary target audience of US Zoo staff (**Figure 1: Supportingdoc10.pdf for larger version**) will be achieved through advertising through the AZA membership, TAG members and publications via the AZA central office and annual participation in the AZA mid-year meeting. Range-country trainees involved in the conservation of species included within SAFE and other species conservation programs involving will be recruited through AZA, the related SAFE programs, and the IUCN Species Survival Commission's (SSC) science-based network of more than 10,500 volunteer experts.

Trainee selection

Interested candidates will be required to complete an online application form including information on their institutional affiliations, job role, links to SAFE programs and/or TAG collection planning priorities or

associated conservation work with the species. Candidates will be selected based on their plans to apply the training to improve collaborative species conservation planning or the sustainable management of the species within US Zoo collections (**see Supportingdoc11.pdf**).

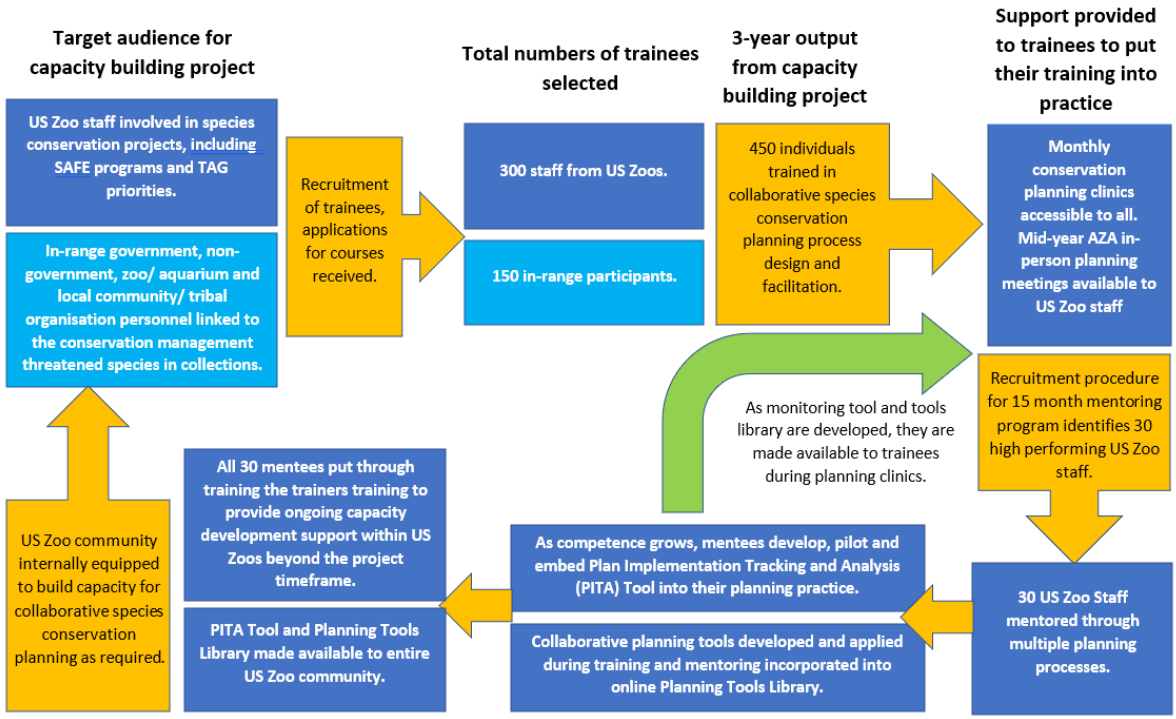

Figure 1. Capacity for collaborative conservation planning project process (see **Supportingdoc10.pdf** for large-scale version).

Training course program

Facilitating Species Conservation Planning Workshops training course

Selected US Zoo trainees will complete CPSG's seven-week, *Facilitating Species Conservation Planning Workshops (FSCPW)* training course. The online format means participants can begin to apply the training to their work during the course. It also allows for US Zoo participants to train alongside selected in-range country participants, providing an additional peer-to-peer learning opportunity for all participants. The course has been running successfully since 2018, through a partnership with The Nature Conservancy at www.conservationtraining.org. Content is based around CPSG's *Species Conservation Planning Principles and Steps* and includes specific training in the skills required to facilitate multi-stakeholder species conservation planning projects (**see Supportingdoc12.pdf**).

Ex situ Conservation Assessment training course

On successful completion of the *Facilitating Species Conservation Planning Workshops* course all participants will then complete our six-module *Ex situ Conservation Assessment (ECA)* online training course that leads participants through the application of the IUCN *SSC Guidelines for the Use of Ex Situ Management for Species Conservation*. The course provides the knowledge and skills necessary to enable zoo and aquarium personnel to review their captive, live and cryopreserved collections and, with the input of in situ experts, evaluate if and how these collections can contribute to the conservation of those species in the wild (**see Supportingdoc13.pdf**). This course includes the Integrated Collection Assessment and Planning (ICAP) process that can be used by TAGs to aid in their regional collection planning (Traylor Holzer, 2019) and by

other US Zoo staff to ensure effective integration of their collections with wider conservation efforts for the species. The course is being piloted in the first quarter of 2023. In the first six months of the project, feedback from this pilot course will be used to refine this training.

Planning Clinics: exchanging experience, getting advice

In addition to the two training courses, monthly, two-hour, live planning clinics will be run online for trainees. Beginning after the first iteration of the *FSCPW* course, these forums will provide participants with structured opportunities to share their planning projects and questions and to receive expert advice (**see Supportingdoc14.pdf**). Collaborations between trainees within US Zoos and within in-range country organizations will be encouraged during clinics.

Professional Development Path mentorship program

Completion of the *FSCPW* online course combined with evidence of applying training received to the improvement or development of SAFE, TAG or other collaborative species conservation planning processes, will be used to identify US Zoo candidates for the 15-month Professional Development Path mentorship program. Potential mentees will need to illustrate that their organizations are committed to providing them with the time necessary to both complete the program and lead on the design and facilitation of their own projects. This program will provide an experienced CPSG planner as a mentor for small (3-5) mentee cohorts allowing for peer-to-peer learning.

During the program, mentees will take on increasing levels of responsibility to design and facilitate collaborative species conservation projects (**see Supportingdoc15.pdf). Funding is included within this project for each mentee to co-facilitate at least one conservation planning workshop in partnership with their mentors**. This will provide an invaluable, culturally diverse learning opportunity for US Zoo mentees. Funding is also included for mentees to co-lead and for mentors to observe and evaluate at least one planning workshop within the US. On completion of the program mentees will receive a certificate of confirmation as *CPSG-recognized Species Conservation Planners.* Mentees achieving certification from the first cohort will have the option of joining the CPSG team as mentors of mentees in cohort 2, running in years 2 and 3 of the project.

Train the trainers course

During their mentorship, US Zoo mentees will receive formal training as trainers so that, upon completion of the program, they are equipped to disseminate their skills and experience to other US Zoo managers and their in-range counterparts. The training will be run online, over a period of six half-day sessions. The course will be developed towards the end of year one and run in years two and three in line with the two cohorts of mentees passing through the program (**see Supportingdoc16.pdf**).

Numbers of courses run and people trained and mentored

The *FSCPW* training course will be run twice per year, online. It is assumed that recruitment will increase as knowledge of the program grows, therefore higher numbers of participants are expected in years two and three of the project. The *Ex situ Conservation Assessment* online course will be delivered once during year one of the project, and twice annually in years two and three. In total, 300 US Zoo staff are expected to complete the *FSCPW* course (**Table 1**). The mentorship program will be run twice during the project, each time for 15 mentees, selected from the cohort completing the training courses. All 30 mentees will be expected to also complete the *Training the Trainers* course on completion of their mentorship. No IMLS funding is allocated for the participation of this non-US group in this capacity building project.

Year	US Zoo participants undertaking collaborative planning training courses (numbers in brackets represent range-country personnel numbers)	Mentees completing mentorship program	Mentees completing train the trainers course
1	80		
2	110	15	15
3	110	15	15
TOTAL	**300**	**30**	**30**

Table 1. Summary numbers of participants trained during the project.

Development of the Plan Implementation Tracking and Analysis Tool (PITA)

CPSG has drafted an Excel-based project tracking tool designed to provide a simple, effective, and visual way to track plan implementation (see **Supportingdoc17.pdf**). The experience mentees will receive in designing and facilitating collaborative species conservation planning processes along with their knowledge of running SAFE or other collection-based conservation programs will position them to tailor this draft tool for their needs and for those of their peers. Mentees will design and pilot the PITA tool in years 2 and 3 (on plans developed during the project), launch it at the AZA mid-year meeting in year 3 and make it available to all US Zoos towards the end of year 3. **Development of this tool will begin in year 2 of the project, when mentees have developed core competencies around integrated planning process design and facilitation.**

Facilitation and Process Design Tools Library

In addition to providing training and mentoring within the US Zoo community, the project will develop an online tools library that will be freely accessible to all US Zoos. It will consist of a user interface that makes it easy for people to locate the conservation planning tools of most interest to them, based on what stage they are at in the planning process and what type of tools they are seeking (e.g., facilitation, process design, analytical, ex situ etc.). Tool information will include a brief description of the tool and a case study of its use in a real-world conservation planning situation. Tools to be included will be those introduced through the training courses and mentorship program. CPSG will maintain and update this resource beyond the timeframe of this project to ensure it will continually respond to the needs of the community and the evolving state of the science in the field of living collection management and endangered species conservation planning. Awareness of this resource will be built through advertising at the annual AZA mid-year meetings.

AZA mid-year meeting exchange

The AZA mid-year meeting is one in which SAFE program staff, TAG chairs and other AZA member institution staff meet to discuss progress and develop partnerships. CPSG will organize a combination of the following at these meetings in order to support realization of this project:

- Presentations to advertise the training courses and mentorship program
- Focus group discussions involving trainees to monitor results and develop and improve the project
- In-person planning clinics to support trainees in the design and facilitation of their species conservation programs
- Round table discussions with mentees and trainees to seek refinements in the Plan Implementation Tracking and Analysis Tool
- A workshop with mentees towards the end of the program to develop a plan for how to continue to build capacity within AZA Zoos beyond the duration of the project
- In-person meeting opportunity for the Project Monitoring Team (**see Project Results section**).

3.0 RISKS TO THE PROJECT AND MEANS TO MITIGATE THEM

Table 2. Outlines the potential risks to this project, including mitigation measures to reduce their likelihood or severity, and contingency planning should they still become a reality.

Risk	Mitigation measures	Contingency planning
Unable to recruit sufficient suitable individuals to support project delivery.	Attendance at annual AZA conference and promotion through the AZA network will support recruitment. Direct links with AZA central office will allow for additional, targeted marketing should this be required.	US Zoos engage in a wide variety of planning relevant to their conservation role, including conservation education, strategic and research planning. If insufficient SAFE, TAG or related program staff can be recruited, then the training will be made available to a wider subset of US Zoo staff.
Trainees start the courses but do not complete them	Since 2018, approximately 80% of participants complete CPSG courses. The online platform allows for tracking of an individual's participant progress. This allows us to focus those who are struggling and to address their concerns.	If it appears we will not reach our target number of people completing a course, additional people will be recruited in subsequent iterations. The online course option provides opportunities to increase the number of iterations without incurring additional 'real' costs to the project.
Global events prevent in-person meeting	The provision of training online from the outset is in part a design feature to account for this potential risk. Feedback from previous online courses provides evidence that online training can be highly effective in improving planning practice.	If necessary, all events linked to this project will be moved online. CPSG has acquired significant skills in running online species conservation planning workshops. Should in-person planning workshops be impossible, then these will shift to the online format as well.
Mentees require additional training prior to certification	Regular mentor/mentee meetings will track mentee progress closely to identify any concerns or additional training needs and how they can be addressed within the timeframe.	Should mentees still require support, other CPSG staff will provide them with additional planning practice.

Table 2. Potential risks and mitigation and contingency measures to overcome the risks.

4.0 INDIVIDUALS PLANNING, IMPLEMENTING, AND MANAGING THE PROJECT

The project will be managed by CPSG's Director of Training, Jamie Copsey, who has more than 20 years of experience in capacity building for conservation and has established and delivers CPSG's current training and mentoring programs. Mr. Copsey will be responsible for overseeing all aspects of project development, delivery, evaluation, and reporting. He will lead on the delivery of training courses in year 1, the mentoring program, and design of the evaluation approach and metrics. He will co-develop the *Training the Trainers* online course with a new Training Officer who will be recruited at the start of the project. In year 1, the Training Officer will observe, team-teach and begin to take on responsibility for course leadership. The Training Officer will work with Mr. Copsey to use the results from the pilot of the *ECA* online training course (in the first quarter of 2023) to refine this course and make it widely available to US zoos and aquariums by the Fall of 2023. The Training Officer will co-manage the delivery of regular *Planning Clinics,* during year 1, taking leadership over clinic and training course delivery in years 2 and 3. The Training Officer will be

responsible for developing and piloting the *PITA Tool,* in collaboration with mentees, and for collating evidence of project outputs, outcomes and impacts in line with the **Performance Measurement Plan**.

CPSG's current senior staff will support the delivery of this project through their co-leadership of the *ECA* course (Dr. Kathy Traylor-Holzer); mentorship on the mentorship program (Dr. Onnie Byers and Dr. Phil Miller); and development of the online Tools Library (Dr. Phil Miller).

5.0 TIME, FINANCIAL, PERSONNEL AND OTHER RESOURCES NEEDED TO CONDUCT THE ACTIVITIES

The project will run over a three-year period and the primary costs involved will be for CPSG staff time, travel and accommodation for staff and participants to attend training at the AZA mid-year meetings, and for planning workshops run by mentees. CPSG will absorb over half the overall costs of project delivery, the remainder being requested from IMLS. The Director of Training for CPSG and Project Director will devote approximately 490 days of his time to the project over the three-year period, with additional CPSG staff (Dr Onnie Byers, Dr Kathy Traylor-Holzer, and Dr Phil Miller) devoting a total of 455 days to the project. The Training Officer will be employed in year 1 to develop and deliver training courses, along with the management of monthly *Planning Clinics.*

6.0 PROJECT RESULTS

6.1 How progress towards achieving intended results will be tracked

Intended project results are captured in the **Performance Measurement Plan** (see separate document). Specific performance measures will be tracked using the Kirkpatrick Model (Kirkpatrick and Kirkpatrick 2016), a global industry standard developed over more than six decades. The model is composed of four levels of measurement (**Table 3**), beginning with the 'reaction' of participants to the training experience (thereby providing feedback on the perceived effectiveness of methods used) through to 'results', or impacts, which in this case concerns the initial consequences of improved collection conservation planning.

Level (related term in Performance Measurement Plan)	**Evaluation focus**
Level 1: Reaction (Outputs)	*How did trainees/ mentees respond to the learning?*
Level 2: Learning (Outputs)	*Did learning transfer occur and have skills improved?*
Level 3: Impact (Outcomes)	*Have trainees/ mentees applied learning to their work?*
Level 4: Results (Impacts)	*Benefit(s) the organization experienced from the input received?*

Table 3. Four levels of evaluation of the project to track progress in achieving results (modified from Kirkpatrick and Kirkpatrick (2016).

6.2 Project Monitoring Team

In discussion with AZA senior staff the project will form a Project Monitoring Team consisting of AZA staff members from the AZA Animal Conservation Committee and TAG members, alongside an IUCN Species Survival Commission (SSC) representative who would represent the needs of in-range country training participants. **This team would meet bi-annually (once in a hybrid format at the AZA mid-year meeting and once fully online) to review project progress and to monitor outputs, outcomes, and impacts in line with the Performance Measurement Plan.** Feedback from the team will be used to inform project development, including any improvements required.

7.0 INTENDED PROJECT RESULTS AND HOW THEY WILL ADDRESS THE NEED IDENTIFIED

As summarized in the **Performance Measurement Plan**, the intention is to enhance the contribution that US Zoos can make to the stewardship of their collections and the conservation of species in the wild through improved collaborative planning undertaken by competent and confident planners trained through the project. More broadly, the results will be a transformational increase in the ability of US Zoo staff to do more effective work, through enhanced institutional, collection and multi-organizational conservation planning. US Zoo capacity to develop collaborative partnerships with other institutions outside of the sector (including overseas) will be strengthened. The ability of the institutions involved to demonstrate to their increasingly environmentally conscious public the critical leadership role they play in addressing pressing, global conservation issues will be increased.

8.0 HOW KNOWLEDGE, SKILLS, BEHAVIORS, AND ATTITUDES OF TARGET GROUP WILL CHANGE DUE TO THE PROJECT

The target group will demonstrate a significant increase in their knowledge and skills in the design and facilitation of collaborative conservation planning processes. Their sphere of influence and ability to manage and lead others and make decisions even within a context of uncertainty or differing opinions will increase. Individuals will be able to develop better relations even with some of their most challenging colleagues and to find ways to reach consensus rather than having to force their opinions or capitulate to others. Through improved interpersonal skills, it is expected that they will report enhanced ability to break down work silos and develop more collegiate work cultures. They will be better equipped to care for their collections and engage other stakeholders in their conservation over the long term.

9.0 MODELS, TOOLS, AND RESEARCH FINDINGS RESULTING FROM THE PROJECT

The Project Implementation Tracking and Analysis tool developed by participants in this project will support ongoing monitoring, reporting and development of US Zoo species conservation planning work. Process design and facilitation tools introduced during the training will be housed in the Tools Library, which will be a freely available resource center. Users will be encouraged to use and modify the tools, and to submit their modifications to the library for inclusion, thereby allowing for improvements and adaptations to be made. We will publicize access to these resources to the AZA membership. IUCN's own network will be used to further disseminate this information. Providing trainer skills to the Development Path mentees will ensure that they are equipped to deliver ongoing training to their colleagues; all training course-related materials will be freely available to mentees to use and modify. **Project results and lessons learned will be published in a journal advancing the field of museum science and practice, such as *Zoo Biology.***

10.0 HOW BENEFITS OF THE PROJECT WILL BE SUSTAINED BEYOND THE CONCLUSION OF THE PERIOD OF PERFORMANCE

The skills developed by this project are fundamental to long-term collaborative conservation and the role of US Zoo collections in species conservation in the wild, demonstrating the future relevance of the institutions to their increasingly sophisticated public. All formal courses will be accessible to staff from across the field after the project has been concluded. Through the Project Monitoring Team, it should be possible to identify a plan for sustaining the benefits from this project over the long-term, including ongoing tracking of outcomes and impacts. CPSG remains committed to US Zoos, many of which are significant supporters of the organization. The presence of senior US zoo and aquarium staff on CPSG's Strategic Committee ensures that as needs in the field evolve, CPSG is informed and able to respond in a timely manner.

Schedule of completion

Project title: National Capacity Building for Collaborative Conservation: the One Plan Approach
Lead: Jamie Copsey (Director of Training, CPSG)
Start date: 1st September 2023
End date: 31st August 2026

Year 1

Activity	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	Aug
Recruitment, delivery and evaluation of *Facilitating Species Conservation Planning Workshops (FSCPW)* training course online (2x annually)	Recruitment for first iteration of *FSCPW* online course		Delivery of online course (40 US Zoo and 15 in-range country personnel trained)		Recruitment for second online iteration of the online *FSCPW* course		Delivery of second iteration of online course (40 US Zoo and 15 in-range country personnel trained)			Recruitment for *FSCPW* online course yr2 iterations		
Recruitment of Training Officer	Advertising and recruitment											
Initial coaching of Training Officer (then ongoing weekly meetings)			CPSG orientation, training in planning tools and processes									
Refinement (based on feedback from pilot) of *Ex situ Conservation Assessment* (*ECA*) training course				Training Officer refines online *ECA* course								
Recruitment, delivery and evaluation of ECA training course (1 in yr1)					Recruitment for *ECA* online course					*ECA* online course delivered to US Zoo and in-country personnel (assumed c50% of individuals completing *FSCPW* course apply for *ECA* course too)		Recruitment for yr. 2 iterations of *ECA* online course
Recruitment and mentorship of mentees on Professional Development Path program (15 total begin in yr1)					Recruitment for mentorship program			Mentorship program cohort 1 begins				
Management of monthly planning clinics												
Development of Facilitation and Process design Tools Library (online)								Brief description of the tools introduced during the training courses produced, including a case study for each of their use in a real-world conservation planning situation				
Annual project monitoring and evaluation						Report on six-month project outputs compiled	Meeting of Project Monitoring Team (PMT) (at AZA mid-year)					End of yr1 report on project outcomes compiled

Year 2

Activity	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	Aug
Recruitment, delivery and evaluation of *Facilitating Species Conservation Planning Workshops (FSCPW)* training course online (2x annually)	Delivery of online course (55 US Zoo and 30 in-range country personnel trained)			Additional recruitment drive for in-person course (if needed)			Delivery of online *FSCPW* online course (55 US Zoo and 30 in-country personnel trained)			Recruitment for yr3 training course progam		
Recruitment, delivery and evaluation of ECA training course (2 iterations in yr2)	Recruitment continues for *ECA* online course (if required)			~50 course completers from *FSCPW* online training course participate		Additional recruitment for *ECA* online course (if required)			~50 course completers from FSCPW online training course participate		Recruitment for yr. 3 iterations of *ECA* online course	
Mentees on Professional Development Path program from yr. 1 complete mentorship. Evaluation of their performance assessed	Original 15 mentees from yr. 1 complete program and their performance evaluated (15 month process)											
Development and delivery of training-the-trainers (online) course for mentees						Course development time						Course delivery and evaluation (modified as required for cohort 2 iteration)
Recruitment and mentorship of second cohort of mentees					Recruitment for 2nd cohort of mentees		Second cohort of 15 mentees begin Professional Development Path program					
Management of monthly planning clinics												
Facilitation and Process design Tools Library (online) piloted with year 2 cohort of trainees and mentees				Pilot phase- feedback solicited from trainees and mentees within the project on utility and comprehensiveness of tools library for species conservation and collection planning for conservation purposes					Refinement of library based on feedback from trainees and mentees			
Development of Plan Implementation Tracking and Analysis (PITA) Tool								Mentees work with Training Officer (Online) to identify necessary components of PITA tool and develop pilot version in Excel				
Annual project monitoring and evaluation and meeting slots for review of results and feedback by Project Monitoring Team (PMT)	PMT meeting to assess outputs/ outcomes yr1. Inform yr. 2 of project						PMT mid-yr2 meeting (AZA mid-year meeting)					End of yr2 on project outcomes and indications of impacts

Year 3

Activity	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	Aug
Recruitment, delivery and evaluation of *Facilitating Species Conservation Planning Workshops (FSCPW)* training course online (2x annually)		Delivery of online course (55 US Zoo and 30 in-range country personnel trained)		Additional recruitment drive for in-person course (if needed)			Delivery of online FSCPW online course (55 US Zoo and 30 in-country personnel trained)					
Recruitment, delivery and evaluation of ECA training course (2 iterations in yr2)				~50 course completers from *FSCPW* online training course participate					~50 course completers from *FSCPW* online training course participate			
Mentees on Professional Development Path program from yr. 2 complete mentorship. Evaluation of their performance assessed	Original 15 mentees from yr. 2 complete program and their performance evaluated											
Delivery of formal training-the-trainers (online) course for mentees											Course delivery and evaluation	
Management of monthly planning clinics												
Full launch of Facilitation and Process Design Tools Library (online)		Library advertised through AZA network			Library made accessible to all US Zoos			Analysis of 'traffic' to library and feedback received (included in end of project report)				
Piloting and launch of Plan Implementation Tracking and Analysis (PITA) Tool	Both mentee cohorts work with Training Officer to refine PITA tool, taking onboard feedback from application of the pilot tool to SAFE and TAG program projects						PITA Tool launched at AZA mid-year meeting			PITA tool publicized through AZA and made available to all US Zoos for plan implementation tracking and analysis		
Annual project monitoring and final project evaluation, report-writing and submission	PMT meeting to assess outputs/ outcomes yr2- inform final yr. project						PMT mid-yr3 meeting (at AZA mid-year meeting)				Final project assessment of outputs, outcomes and impacts and lessons learnt for future projects. Submission of project process, impacts and reflections for peer-review publication.	

Digital Products Plan

Type

1. Development of training curricula

CPSG has an existing relationship with The Nature Conservancy (TNC) through its online training platform at www.conservationtraining.org. They host our existing online, seven-week *Facilitating Species Conservation Planning Workshops* training course and have done so since it was established in 2018, as well as our *Wildlife Disease Risk Analysis* (since 2021). They will also be hosting our *Ex situ Conservation Assessment* training course, which will be piloted just prior to the start of this project. CPSG staff have been trained by TNC in how to upload content and modify formats on the www.conservationtraining.org site, and so are well-placed to be able use the platform to create additional courses and content without the need to incur additional costs for technical website or online course format development.

There will be one new course developed on this site as a part of this project i.e., the Training-the-Trainers course for mentees. The course will be designed in English. For this course we will develop the following content:

- Narrated PowerPoint presentations, transferred into MP4 format
- Course handbooks (in pdf format)
- Recorded interviews (again in MP4 format)
- Additional reading materials
- Online end of module assessments (using the www.conservationtraining.org pre-programmed set of test question formats)

MP4 formatted presentations have been selected as the www.conservationtraining.org site is able to track whether participants have watched presentations formatted in this way, allowing for participant course completion tracking. All imagery and text used will be copyright free and made available for download.

2. Development of online Facilitation & Process Design Tools Library

We will create a web-based app to assist planners in finding what tools they need to tackle each step of the planning process. By making the app web-based and public-facing, it will be universally accessible, and it will be easy to modify as the Tools Library expands. The app will step the user through a series of filtering questions that drill down to the subset of tools in our Tools Library that will best meet their needs. Provided on the page describing each tool with be the links to download any needed software to use the tool, supporting documentation, templates for using the tool, examples of its use, links to video tutorials, and links to related tools that would be alternatives to be considered for the planning tasks. The app will be developed in JavaScript, so that it can be easily developed and maintained by contract web designers and developers. The project team will provide the content in terms of the questions that will lead to the set of appropriate tools, and the resources associated with each tool. A contract web-designer will complete the programming and integrate the app to our website.

Availability

Course participants can download all course materials from the training to save to their own devices, as required. Our existing relationship with TNC enables us to secure this access. The online course content

will remain available to all trainees participating in this project for two years after the project end-date. At this point it is assumed the content will need to be updated. Only individuals selected for the training can access the training courses. CPSG's existing training program will maintain the courses through the TNC website, and ensure all US zoo, aquarium and botanic garden staff are able to apply for places on the courses for at least two years after the completion of the project, at which point the courses will need updating. Whilst members of the public could apply and obtain a place on the training, course content is primarily designed with the professional, zoological audience in mind.

The Tools Library will be a web-based app hosted by CPSG and will be publicly available to anyone wishing to search for related content. Where web links are included to further information or tools, priority will be given to those resources that are free to download. CPSG will promote access to the tools library through the AZA and BGCI members, collectively totalling 369 institutions. CPSG anticipates that the approximately 1000 individuals who have passed through its training programs to date will both access the library and act as multipliers, sharing access to their networks which includes zoo, aquarium and botanic garden personnel, government and other non-government conservation organizations, and civil society groups. Furthermore, as part of the wider Species Survival Commission (SSC), CPSG can promote the availability of this library to more than 9000 members from almost every country in the world, significantly scaling up the potential reach of this resource.

More than two thousand individuals are currently signed up to receive CPSG's regular E-News. This group will be used to promote access to the library more widely. The E-news will also be used to communicate library updates and revisions to ensure timely access as the resource is revised and improved through time.

The results of the project are also intended to be published in *Zoo Biology* and costs have been included within the budget to make this article fully Open Access.

Access

All courses made available through the www.conservationtraining.org site are available free of charge to the users. CPSG will continue to maintain the courses it delivers free of charge or at most, at cost price following completion of the project.

The online Tools Library is web-based app and, as such, is freely accessible to all.

Users of the CPSG website and Tools Library will only need an Internet connection with limited speed requirement and a common web browser. The Tools Library will not require any special plug-ins for its use.

Sustainability

CPSG has an established training program with the responsibility to develop and maintain all training resources produced which relate to collaborative planning. Course content is reviewed on an annual basis (following formal feedback from course participants, trainers and partners) and updated accordingly. CPSG remains committed to this training and, as such, has employed a Director of Training on a full-time, permanent basis to maintain and develop these resources.

The Tools Library web-based app will be hosted along with the CPSG website. CPSG has the core funding to maintain the Tools Library after its initial development. The CPSG website and Tools Library will continue to be hosted by a 3rd party provider to ensure site availability, uptime, and performance.

Applicant Name: Jamieson Copsey (Project Director) (*Global Conservation Network, dba* IUCN SSC Conservation Planning Specialist Group)
Project Title: National Capacity Building for Collaborative Conservation: the One Plan Approach

Performance Measure	**Data We Will Collect** (e.g., counts, costs, weights, volumes, temperatures, percentages, hours, observations, opinions, feelings)	**Source Of Our Data** (e.g., members of the target group, project staff, stakeholders, internal/ external documents, recording devices, databases)	**Method We Will Use** (e.g., survey, questionnaire, interview, focus group, informal discussion, observation, assessment, document analysis)	**Schedule** (e.g., daily, weekly, monthly, quarterly, annually, beginning/end)
Effectiveness: The extent to which activities contribute to achieving the intended results.				
IMPACT: US zoos applying enhanced capacity for the sustainable stewardship of their living collections and the conservation of the species in the wild.	Tracking results of plan implementation, including reported quality of inter-institutional collaborations, and the implementation of planned conservation actions.	SAFE and other US Zoo-led species conservation program leaders, TAG members and in-country collaborators trained through the project.	(a) Formal feedback from Project Monitoring Team; (b) semi-structured interviews with TAG members and SAFE program leaders and their in-country counterparts; (c) Focus group discussions at AZA mid-year meetings; (d) Analysis of data generated through Plan Implementation Tracking and Analysis tool.	(a) Bi-annual meetings (b) Bi-annual interviews of subset of individuals trained (c) Annual mid-year AZA midyear meeting (d) Assuming tool applied in yr2. Annual analysis of results.
OUTCOME: More effective species conservation plans developed designed to improve the contribution of US Zoos to species recovery in the wild and the sustainability of their living collections.	Written plans produced during the project period (including existing ones that have been updated), and feedback on planning process improvements achieved through project	Review of written plans produced; feedback from stakeholders involved in plan production and the trainees and mentees that design and facilitate these planning processes. Feedback from Project Monitoring Team (PMT).	(a) Analysis of plans produced to assess improvements in quality; (b) Stakeholder surveys at planning meetings facilitated by trainees/mentees to capture opinions on collaborative process design; (c) Trainee/mentee focus group reviews.	(a) Plans analyzed on an annual basis (by CPSG staff and PMT) (b) Surveys circulated by trainees/ mentees after each planning process to capture feedback from stakeholders involved (c) The focus group project review led by project leads at the AZA mid-year conference, years 2 & 3

OUTPUT: Upscaling in number of competent and confident planners within the US Zoo community actively engaged in collaborative conservation planning efforts.	Please see 'Quality' section for further information on how the outputs of the project will be monitored and measured.			
Efficiency: How well resources (e.g., funds, expertise, time) are used and costs are minimized while generating maximum value for the target group	Staff timesheets will be maintained to enable us to calculate, on a quarterly basis, the investment of time in the project to determine where investment is greater and to seek opportunities for increased efficiency. Additional time invested in the project by non-project staff will be recorded quarterly, to determine the additional in-kind dollar contribution made to project delivery. We will institute a requirement that a minimum of three quotes be obtained for all project related flights and accommodation to manage project costs.			
Quality: How well the activities meet the requirements and expectations of the target group	The target group for this project is the US Zoo professionals trained and mentored. The quality of the training and mentoring undertaken will be monitored through: 1) Pre-/post-competency assessments completed by trainees/mentees documenting their perceived competency shifts after compared to before embarking on the capacity development journey. 2) Post-training, anonymous course surveys of trainees to capture their opinions on the quality of training delivery and the extent to which they envision the training will impact their professional abilities. 3) Annual semi-structured interviews with a random subset (10%) of trainees and mentees to record qualitative feedback on the extent to which the training input has influenced their working practice, and in particular integrated collection planning. 4) Formal, anonymous surveys undertaken by trainees/mentees of participants in planning meetings they design and facilitate, to collate their feedback on the quality of process design and facilitation received. 5) The Project Monitoring Team (convened twice annually) will play a key, independent role in reviewing performance tracking data and providing advice as to opportunities for maximizing project success.			
Timeliness: The extent to which each task/activity is completed within the proposed timeframe	The Project Director will assess alignment between our proposed Schedule of Completion and actual activity completion dates quarterly and use this information to determine where additional in-kind investment of time may be required to maintain the project on schedule. Professional Development Path mentors will submit six-monthly reports to the Project Director to monitor the professional development progress made by mentees.			