Certified Ecological Restoration Practitioner Program
2018 Annual Report

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Prepared for:

SER Board of Directors

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Contents

The Society for Ecological Restoration's (SER's) Certified Ecological Restoration Practitioner (CERP) program has continued to gain momentum since its launch in January 2017. This annual report builds off the CERP Program Year 1 Report by providing an overview of the current CERP program highlighting any changes made in 2018, analysis of the 2018 applicant demographics, new program initiatives, and recommendations for program improvements.

Current Program Overview

SER offers two levels of certification:

- Certified Ecological Restoration Practitioners (CERPs) who meet both the knowledge **and** experience requirements
- Certified Ecological Restoration Practitioners-in-Training (CERPITs) who meet either the knowledge **or** the experience requirements

Program Requirements

No changes were made to the CERP/CERPIT requirements in 2018; however, the website and application support materials were revamped to clearly provide an applicant portal with a step by step process (Figure 1).

Figure 1. Steps Required to Apply for CERP or CERPIT

Step 1: Demonstrate an understanding of the foundations of the profession by taking the e-learning course (hosted on Litmos, a third-party Learning Management System platform).

Step 2: Submit the application fee. Payments are accepted on the SER website (via Your Membership).

Step 3: Provide your application (on Submittable, a third-party application submission and review platform) to demonstrate that you meet the standard set for knowledge base, professional-level experience, project experience, references, ethics and disciplinary policies (Figure 2).

Figure 2. Components of the Application

In 2018, we shifted the two application windows by one month to extend over multiple fiscal year cycles and allow more flexibility in how and when payments are allocated for potential applicants' companies. The new application cycles are February through April and August through October.

The grandfathering provision was renamed to the Prior Learning Assessment and Recognition (PLAR) provision to be more inclusive and avoid potentially limiting language. The PLAR provision allows applicants to substitute equivalent knowledge gained through other means (e.g., field work, teaching) for missing academic credits. Applicants must demonstrate specifically how this equivalency has been achieved. PLAR is currently approved through 2022.

We clarified that a typical 3 credit semester course is based on 42-45 contact hours (3 hours per week for 14-15 weeks). Equivalency of other units can be calculated based on this conversion.

Certification Maintenance and Continuing Education Partnerships

As part of the website revision, we also created a new certification maintenance portal that puts all of the maintenance information for current CERPs/CERPITs in one location. This includes links to submit continuing education credits (CECs), track CECs, find content that has been pre-approved for CECs, and information on payment of annual maintenance fees.

This was the first year in which annual maintenance fees were issued. The process was completed through the SER website and was functional but did not provide an easy user experience for CERPs/CERPITs. This process is being refined in 2019 to make the payments as easy as possible.

Continuing education offerings are a mixture of both live events and archived webinars and trainings (http://www.ser.org/page/CERPapprovedCECs). In 2018, we added a 10 CEC maximum for a single event in order to balance the CECs offered by activity type and to encourage variability in CERP engagement and outreach.

In 2018, 269 requests for continuing education approval were submitted through Submittable and reviewed by members of the Continuing Education Committee[1]. This included 68 events submitted by organizers/sponsors and 201 events/activities submitted by CERPs/CERPITs. Turnaround time on reviews was 1-3 weeks.

Live events provide an opportunity for our practitioners to actively engage and network with other practitioners, but sometimes attendance is not possible due to costs, location, or time. Therefore, we wanted to make sure there were many free online options so that accessibility was not a limiting factor. We currently have pre-approved all of the SER and available SER chapter archived webinars (approximately 40 and growing). We have also pre-approved 29 of the relevant United States Department of Agriculture (including Forest Service and Natural Resources Conservation Service) webinars[2]. In 2018, SER was also added as a partner on the National Oceanic and Atmospheric Administration and U.S. Fish and Wildlife Service joint Restoration Webinar Series,[3] which is pre-approved for CECs.

We have also made substantial progress on obtaining archives or pre-approval agreements for webinars and trainings from the Great Lakes Phragmites Collaborative, the Interagency Ecological Restoration Quality Control Working Group, The Nature Conservancy, and the

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[1] Additional CECs were directly added to certificants' journal through pre-approved archived webinars.
[2] http://www.conservationwebinars.net/previous-webinars/webinarSearch?SearchableText=&branding=&Subject=&getListOfCEUsNotExpired3=Society+for+Ecological+Restoration+%28SER%29&getWebHost=&portal_type=Webinar&sort_on=webinarDate&sort_order=reverse&formSubmitted=1&review_state=published
[3] https://nctc.fws.gov/topic/online-training/webinars/restoration.html

Great Basin Fire Science Exchange. We expect that most of these groups will provide their archived webinars or allow CECs to be provided in 2019.

In 2019, we will continue to build our live and online continuing education offerings to provide our CERPs/CERPITs with diverse and accessible continuing education options and to demonstrate the CERP program's relevance and standing with important agencies and organizations in the field of ecological restoration.

Program Administration and Governance

The certification program is overseen by the Certification Program Coordinator and administered by the volunteer members of the five standing committees. In 2018, we modified the size of the committees to better distribute the workload (e.g., Certification Committee, Continuing Education Committee) and to facilitate elections by allowing 1/3 of the committee to cycle off/on each year. Updated committee composition/requirements as follows:

- **Certification:** The Certification Committee is comprised of 18 CERPs or CERPITs
- **Appeals and Disciplinary:** The Appeals and Disciplinary Committee is comprised of 6 CERPs or CERPITs
- **Standards:** The Standards Committee is comprised of 9 members including a chairperson who is a CERP
- **Continuing Education:** The Continuing Education Committee is comprised of 9 members, including a chairperson who is a CERP
- **Marketing and Outreach:** The Marketing and Outreach Committee is comprised of 6 members, including a chairperson who is a CERP

We held our first formal committee election process in 2018. We received enough interest to fill all open seats.

2018 Applicant Summary

In 2018, the CERP program accepted 123 applications and certified 112 CERPs/CERPITs. The general characteristics of the applicants and certificants are provided in the following sections.

Number of Applicants

During 2018, 123 applications were submitted (93 for CERP and 30 for CERPIT) as presented in Table 1. These numbers represent a decrease from 2017.

Table 1. Applications for CERP and CERPIT in 2017 and 2018

	2017 Applications	2018 Applications	*Total*
CERP	155	93	*248*
CERPIT	25	30	*55*
Total	*180*	*123*	*303*

The number of applicants in 2018 was lower than 2017 and was between the "Reasonable Case" and "Worse Case" scenarios from the 2016 Business Plan (Figure 3).

Figure 3. Comparison of Actual and Projected Number of Applications for 2018
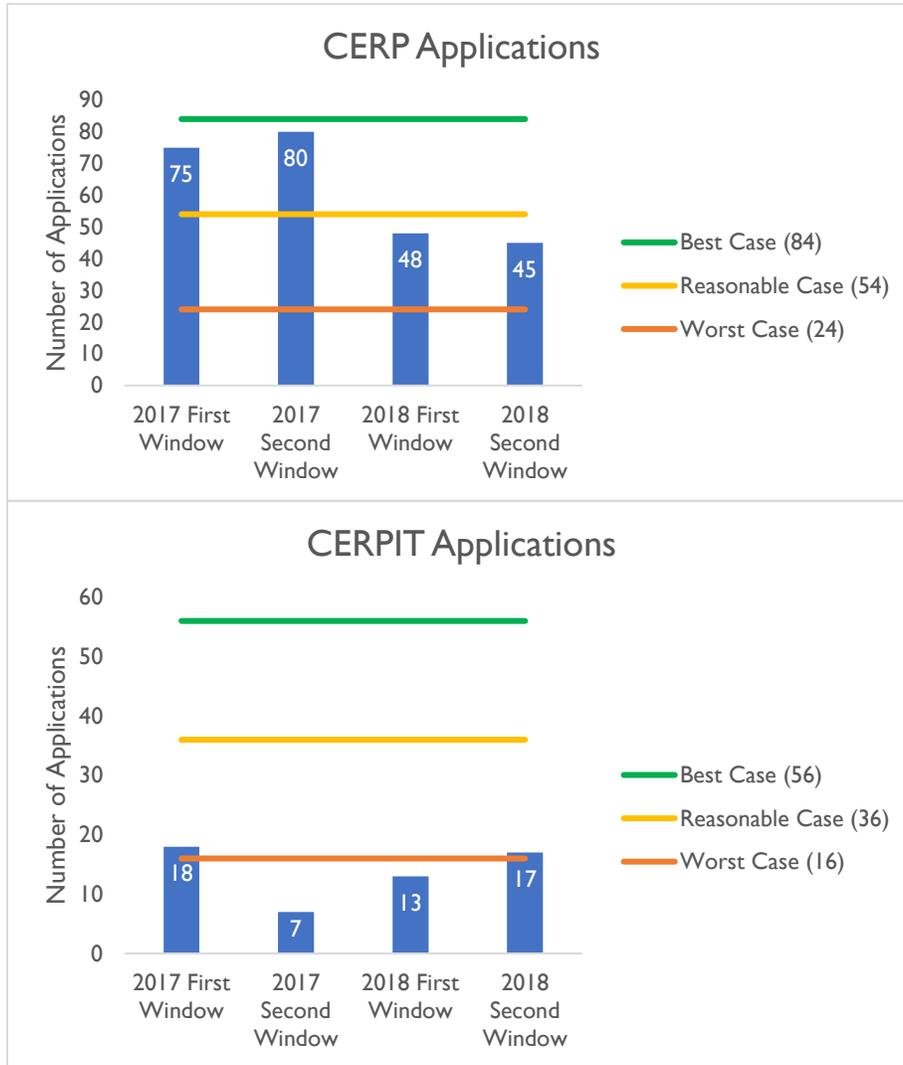
An additional 423 potential applicants have begun some part of the application process but have not submitted a complete application. Outreach indicated that the partial applicants fell into three main groups -- those who:

1) Were curious about certification, but realized they wouldn't qualify
2) Didn't have time to complete it because of work commitments but plan to do so in the future
3) Could not get fee reimbursement so were debating whether or not to proceed

Many of these potential applicants indicated that they would be submitting the complete application in 2019. Targeted outreach to all of those with partial applications will be a priority in 2019.

## Applicant Demographic Information

Demographic information was voluntarily provided by applicants during the application process. Applicants from 2018 were from 9 countries (United States, Canada, Australia, Belgium, Brazil, Colombia, Indonesia, Mexico, and Nigeria). The vast majority of candidates (75%) were from the United States (Figure 4).

Figure 4. Geographic Distribution of Applicants from 2018
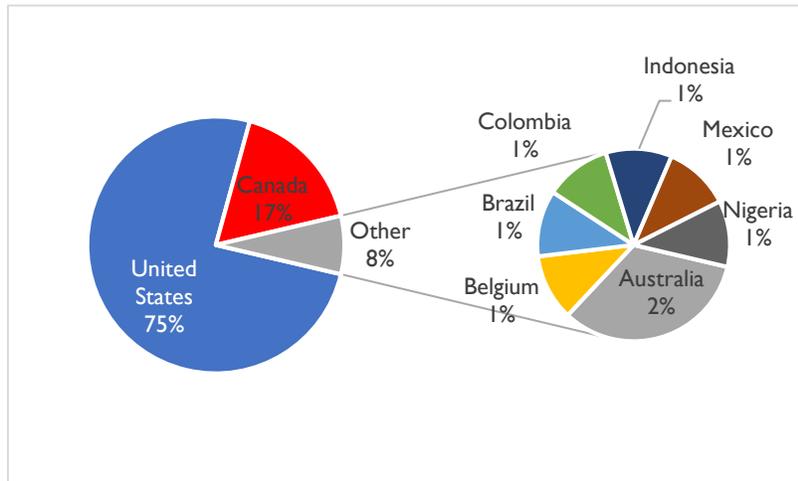

Applicants were associated with 16 SER chapters, thematic sections, and student associations (Figure 5). The chapters with the most applicants were the Northwest and Western Canada chapters.

Figure 5. Chapter Membership of Applicants from 2018b
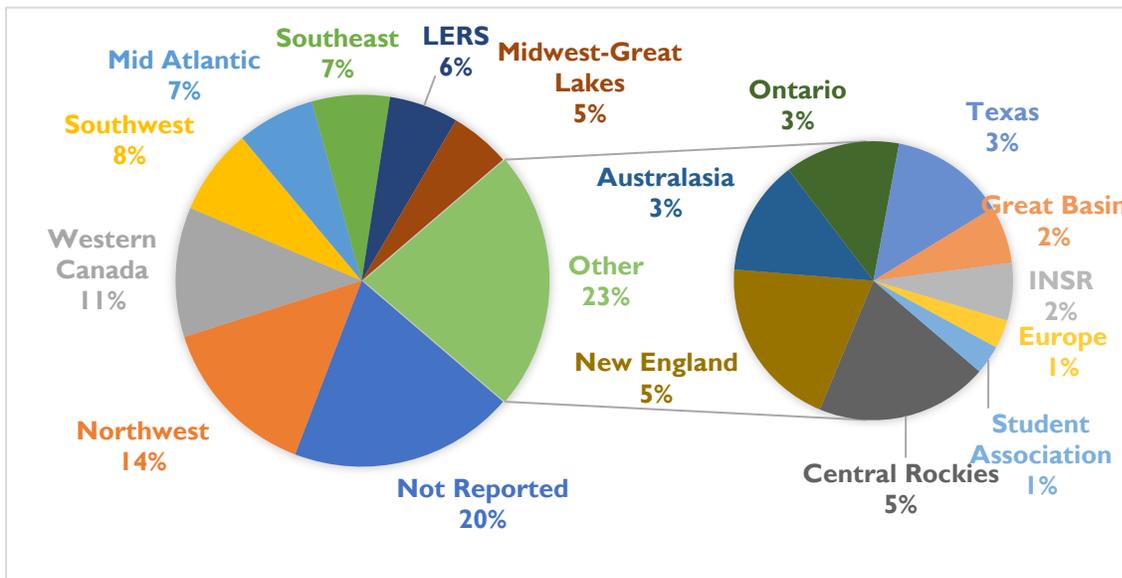
Applicants were 45% female and 55% male (Figure 6). The proportion of female applicants increased from 2017 to 2018 (from approximately 33% to 45%, respectively).

Figure 6. Gender Distribution of Applicants from 2018
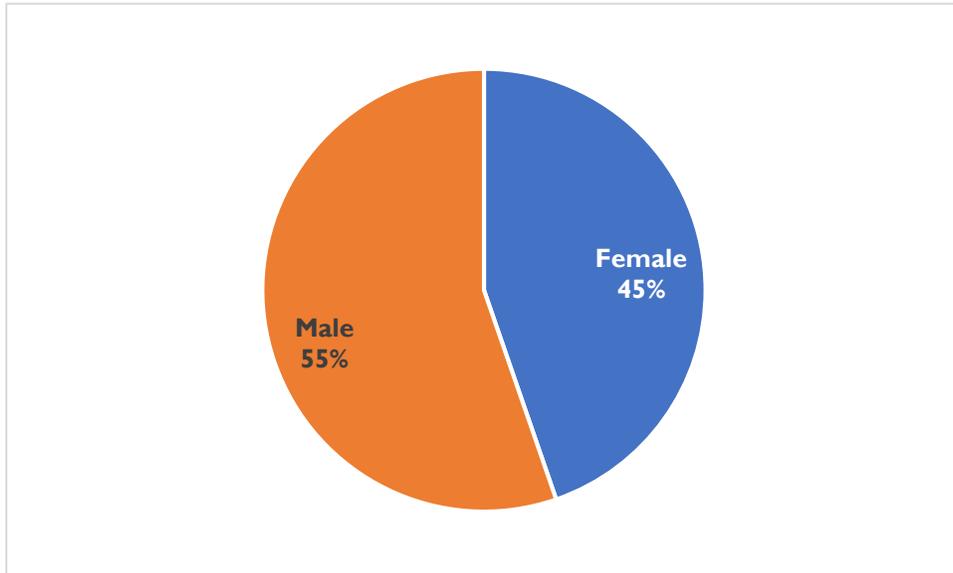
The majority of applicants were under the age of 44 for CERPIT or between the ages of 25 and 64 for CERP (Figure 7)

Figure 7. Age Distribution of Applicants from 2018
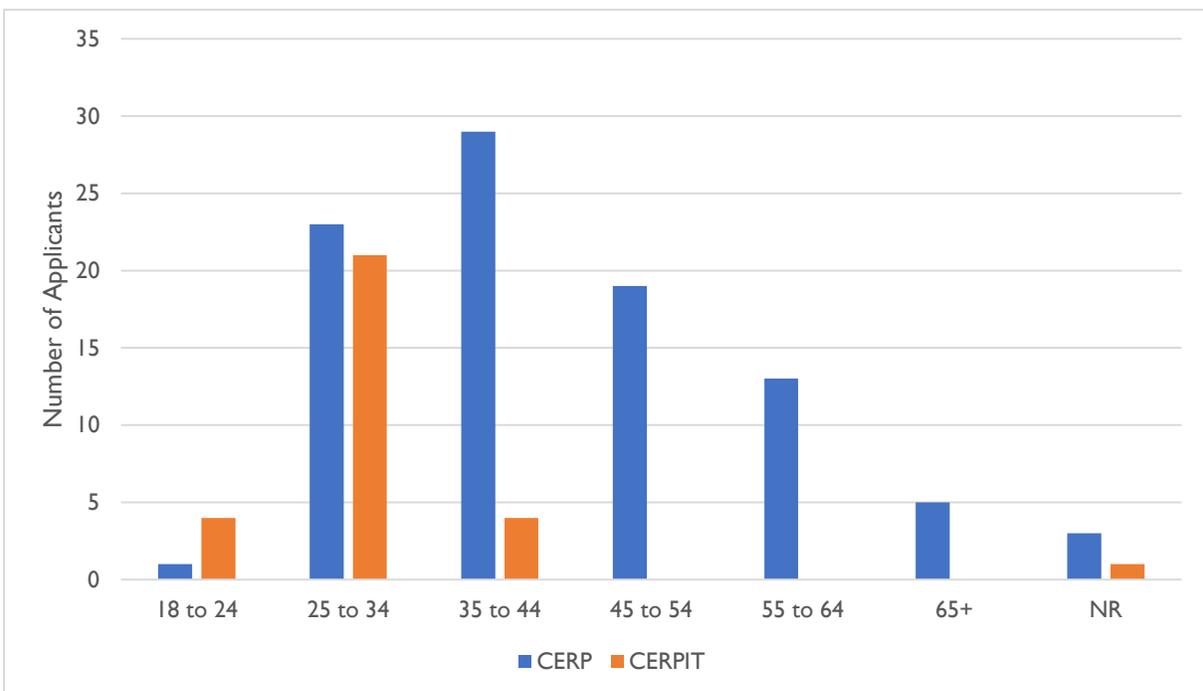
Most applicants for both CERP and CERPIT were SER members (Figure 8). Some of those members had been long-standing members, while others joined around the same time as they applied for certification. In the past we have not had a way to track the number of members who join in order to get the member CERP application rate; however, we recently added certification to the "how did you hear about us" question on the membership application.

Figure 8. Membership Status of 2018 Applicants for CERP and CERPIT
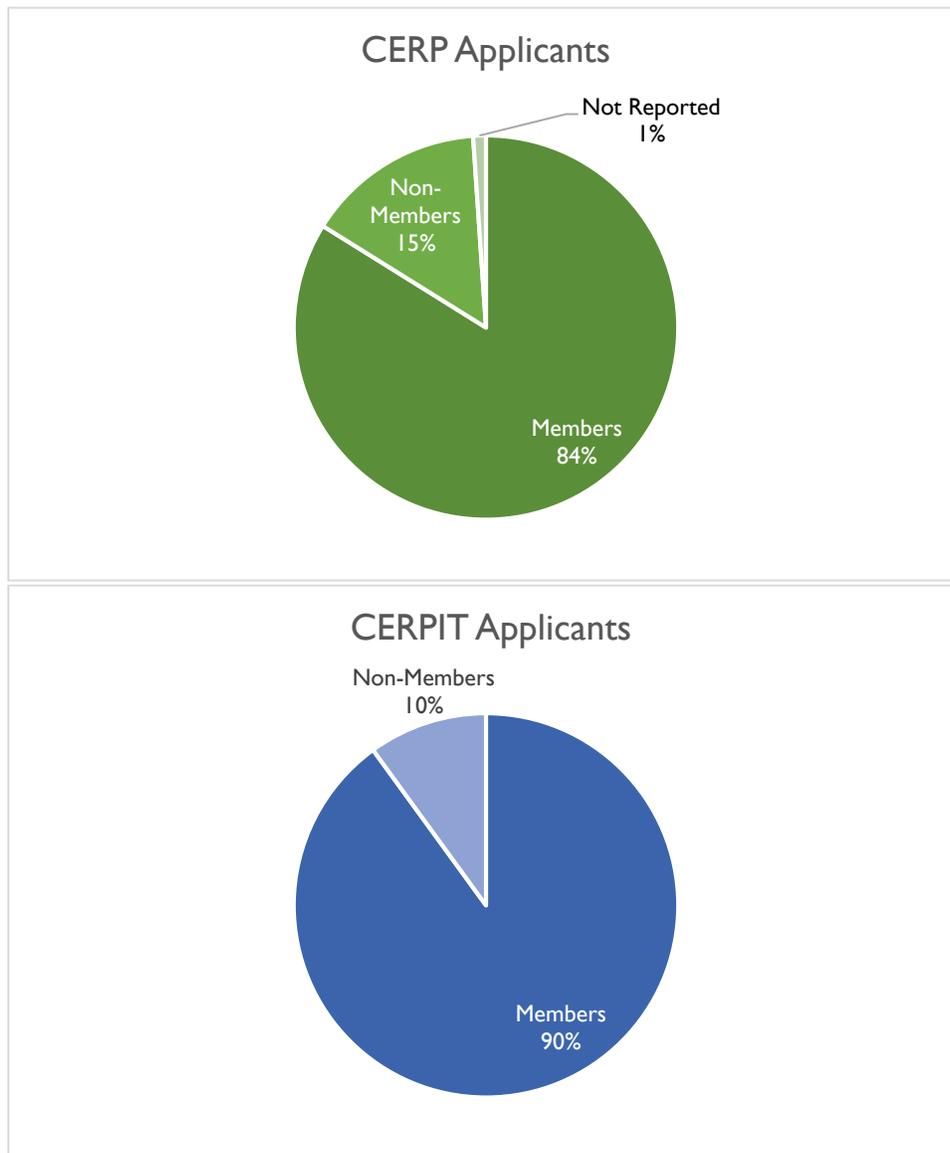
The number of applicants with bachelor's degrees was similar for CERP and CERPIT (Figure 9). However, more CERP applicants had a graduate/professional degree than a bachelor's degree.

Figure 9. Highest Degree Earned of Applicants from 2018
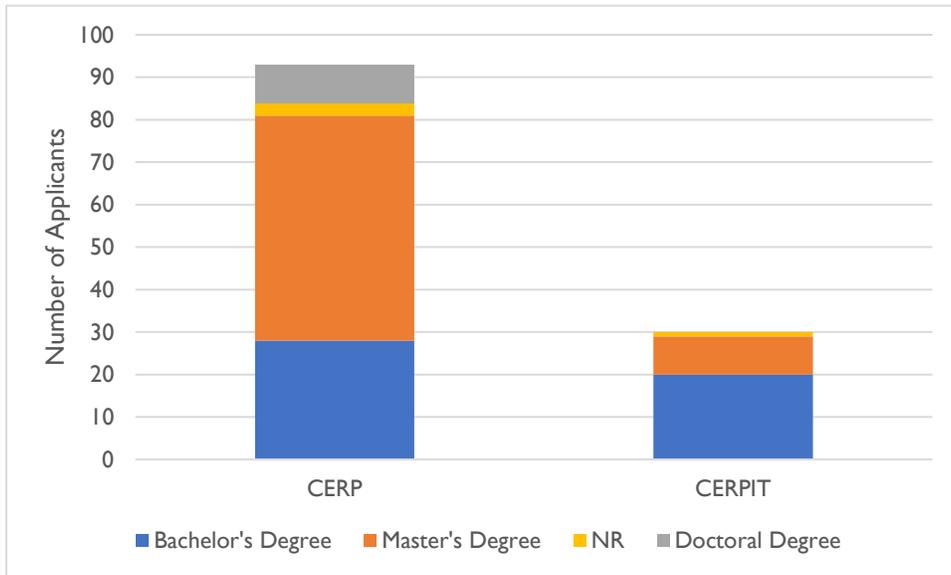
Most CERPs were from the private sector; however, government agencies were also strongly represented (Figure 10). The majority of CERPITs were also employed in the private sector.

Figure 10. Sector Affiliation of Applicants from 2018
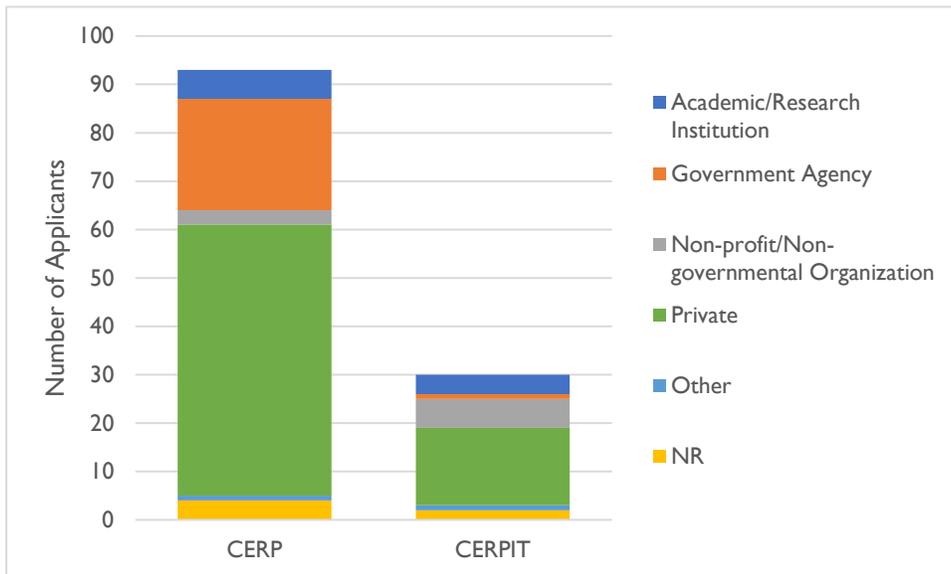
Review Process and Approval Rates

Initially, all applications are randomly assigned to three independent reviewers. The reviewers do not discuss applications with each other unless there is not a unanimous decision. If all three reviewers agree on the recommendation, no further review is necessary. If the reviewers do not agree, they may ask for supplemental information or may discuss the case with the

other reviewers. If a unanimous decision still is not reached the application is forwarded to three additional reviewers for an expanded review. In 2018, only 19 of the 123 applications required an expanded review. Of those, 12 were subsequently approved, 3 were downgraded to CERPIT, and 4 were rejected.

The overall approval rate for the CERP program was 91% (Table 2). Approval rates were higher for CERPs than CERPITS (which was opposite of 2017). For CERP applicants, 91% were approved outright and 5% were downgraded to CERPIT. For CERPIT applicants, 73% were approved, while 26% were rejected or still unresolved[4].

Table 2. 2018 Approval Rates for CERP and CERPIT

	CERP Applicants	Percentage CERP Applicants	CERPIT Applicants	Percentage CERPIT Applicants
Approved	85	91.4%	22	73.3%
Downgraded to CERPIT	5	5.4%	0	0.0%
Unresolved*	0	0.0%	4	13.3%
Rejected/Withdrawn	3	3.2%	4	13.3%
Total	93		30	

Prior Learning Assessment and Recognition

The Prior Learning Assessment and Recognition (PLAR) provision (formerly referred to as grandfathering) was used in 40% of the applications (49 out of 123 applications) which was less frequent than Year 1 (60% of applications). Of those who used the PLAR provision in 2018, 51% used the provision in only one course requirement category – typically the Ecological Restoration category or one of the subcategories (e.g., soils/hydrology/climate, inventory/monitoring/assessment, ecology; Figure 11).

Figure 11. Number of Categories for which the PLAR Provision Was Used Per Application

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[4] Applications may be unresolved for a variety of reasons. In this case, all four need to provide supplemental information for the review to proceed.
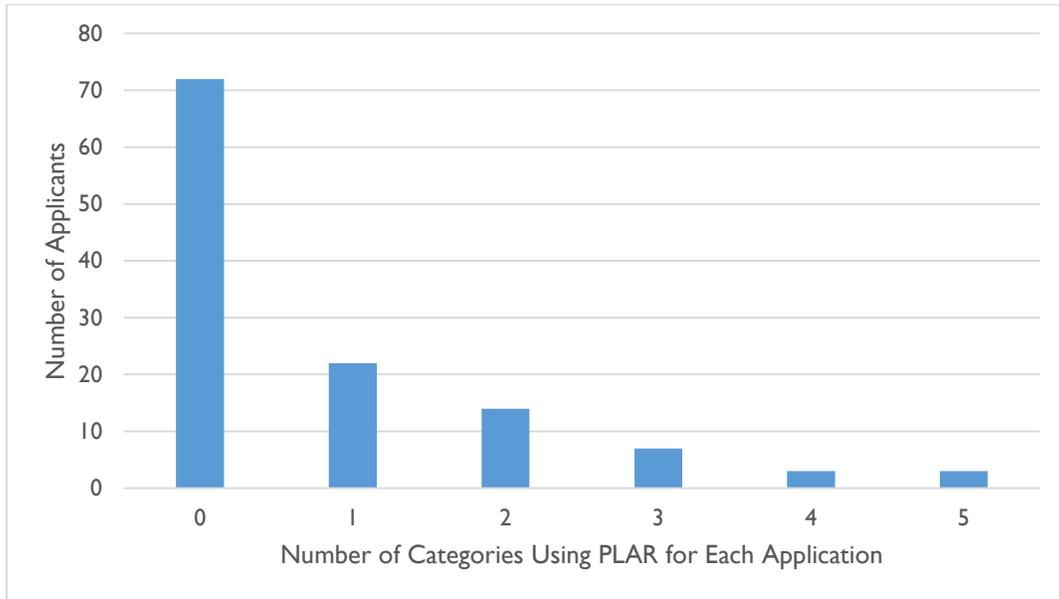
The PLAR provision was used for the Ecological Restoration category much more frequently than other categories, which were generally evenly distributed (Table 3).

Table 3. Incidence and Percentage of Overall PLAR Use for Each Category

Category	# Applications	% of Applications That Used the PLAR Provision
Biological Science	10	10
Physical Science	16	17
Resource Conservation and Management	12	13
Quantitative Science	14	15
Ecological Restoration	44	46

Applicants with a graduate or professional degree tended to use the PLAR provision more frequently than applicants with a bachelor's degree (Figure 12).

Figure 12. Number of Categories with PLAR Provision by Degree
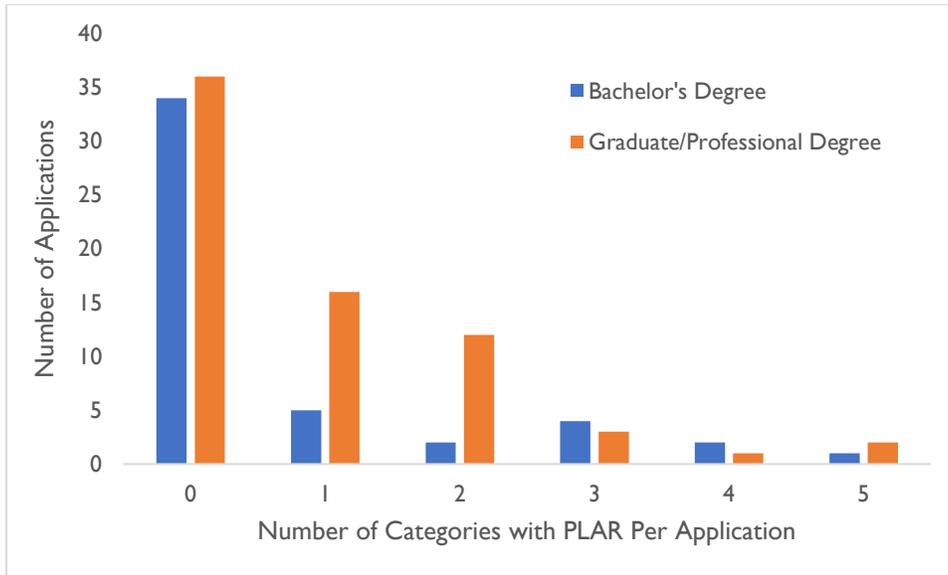
Applications with no or limited PLAR use (0 to 2 categories) had a much higher percentage of approval (85-100% approval) than applications with PLAR use in 5 categories (67% approval; Figure 13).

Figure 13. Approval Status for Applications in Each Grandfathering Category
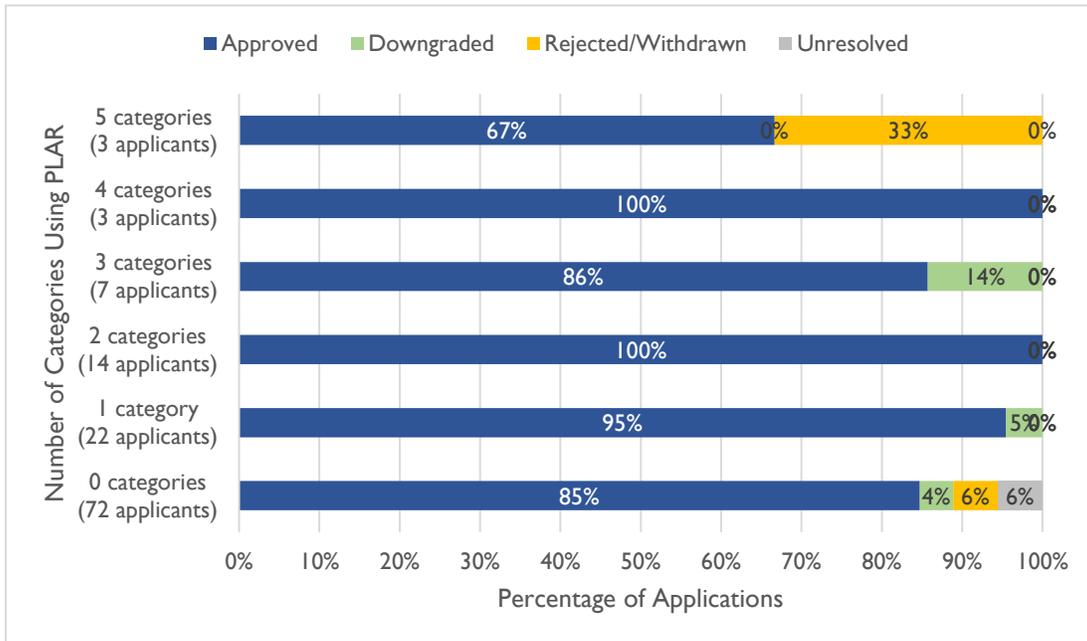
Financial Summary

The CERP program was self-sustaining in 2018, bringing in $46,331.50 in total income (Table 3). Although the overall CERP application fees were lower than Year 1, the maintenance fees and academic institution partnerships made up for the difference. The CERP program projected expenses were approximately $52,000, but actual expenses were only approximately $43,000.

Table 3. 2018 CERP Program Income (USD)

	2018 Income
Academic Institution Partnerships	$4,000
CERPIT Upgrades	$200
CERP/CERPIT Maintenance Fees	$11,610
CERP/CERPIT Application Fees	$30,521.50
Total	*$46,331.50[5]*

Outreach and Partnerships

Marketing and outreach for the CERP program was based on a combination of printed materials (fact sheets, brochures, exhibitor materials, poster), social media, presentations and webinars given by SER staff, appearances by our CERP ambassadors, and various calls and meetings to develop potential partnering opportunities. Program fact sheets were updated in 2018 to focus on more detailed program information.

CERP Program Ambassadors

CERP ambassadors are CERPs and CERPITs who represent SER and the CERP program at conferences, events, and trainings. At these events, our biggest assets – our CERPs and CERPITs – can be publicly recognized as they endorse our program and provide more personal answers to questions from potential applicants. We are so proud of our amazing CERP ambassadors who have presented or made appearances at the following events:

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[5] This includes $2,225 of discounts from promo codes for sponsors and flex business members. These will be reconciled at the end of the fiscal year.

- NYC Restoration Practitioners' meeting (USA, January 2018)
- Western Canada chapter meeting (Canada, February 2018)
- MWGL Chapter meeting (USA, April 2018)
- SWS Annual Meeting (USA, May 2018)
- Ecological Society of America (USA, August 2018)
- National Conference on Ecosystem Restoration (USA, August 2018)
- Europe chapter meeting (Iceland, September 2018)
- Australasia chapter meeting (Australia, September 2018)
- Western Canada chapter meeting (Canada, September 2018)
- New England and Mid-Atlantic joint chapter meeting (USA October 2018)
- SER NW and SWS joint conference (USA October 2018)
- Texas Chapter Meeting (USA, November 2018)
- Restore America's Estuaries (USA, December 2018)

Thanks to our CERP program ambassadors: Joe Berg, Jennifer Brunton, Paul Davis, Lynde Dodd, Brick Fevold, Shaddi Kamel, Ingrid Karklins, Lorene Lynn, Mickey Marcus, Nick Nelson, Andy Owens, Chris Polatin, Dave Polster, Amy Sacry, Matt Sarver, Jessica Schuler, Mike Toohill, Regina Wandler, Jason Weiler, and Stan Wilson.

Academic Institution Partnerships

In 2018, we launched two new partnering offerings for academic institutions.

- The **Program Alignment Review** includes a SER review of how an academic institution's degree requirements align with the CERPIT knowledge requirements. With this offering, students will have confidence that when they graduate, they will have met CERPIT requirements (or know if there are additional courses that are required). University of Victoria was the first academic institution to partner at this level.
- The **Program Alignment and Emergent Professional Memorandum of Understanding** also includes a SER review of how the degree program curricula align with the CERPIT requirements. However, this offering goes further to bridge students'

transition from graduate to emerging professional by including SER emerging professional memberships and complimentary CERPIT application fees for up to 40 graduates each year. Niagara College was the first academic institution to partner at this level.

Ongoing Program Challenges and Recommendations

Once again, general feedback on certification and the CERP program has been very positive. In the Year 1 annual report we identified some program challenges and possible solutions. In the following section we have updated the program challenge list with progress and ongoing solutions.

Program Recognition

Previous Challenge: Increase program demand.

Progress/Solution: We know of at least three funding organizations that required CERPs/CERPITs as part of their Request for Funding or Request for Qualifications!

In 2019, we will begin a funders campaign to actively encourage organizations that fund ecological restoration projects to require or give preferential consideration to applicant teams with CERPs/CERPITs.

We will also continue to build upon those initial requirements and actively encourage government agencies (initially in the United States and Canada) to: 1) endorse/recognize the program both for their staff and at the contracting/hiring level and 2) provide increased consideration in hiring processes for applicants who are CERPs.

User Experience

Challenge: The multiple user platforms (SER website, Litmos, Submittable) all require separate logins, which can be annoying to the applicants.

Progress/Solution: We engaged an IT specialist to evaluate the viability of single sign on to create a more user-friendly experience. Unfortunately, the cost to implement and maintain single sign on would be approximately $3,500-$5,000 per year, which is not currently in our budget. In 2019, we will beta test a migration of the e-learning course to the SER website to reduce the number of different systems being used throughout the application process.

CERP/CERPIT Benefits

Challenge: We want to confirm that our CERPs/CERPITs are receiving sufficient value to make their certification worthwhile.

Progress/Solution: We launched the CERP/CERPIT-only newsletter, Practitioner Insider, which contains technical and practice information that will be of particular interest to

practitioners. We also created some CERP-branded merchandise (ser.cafepress.org) and organized some CERP-specific networking/recognition events. We will continue to expand our CERP networking and discussion offerings in 2019.

Committee Volunteers

Challenge: CERP is largely dependent on very active volunteers. Not all volunteers and committees were delivering at the level needed to truly build the program.

Progress/Solutions: New committee members were provided with a formalized committee member job description and received onboarding materials to create a baseline understanding of the roles and responsibilities of committee members. The growing pool of CERPs and CERPITs also means that there is more opportunity for interested and eager volunteers to join a committee.

International Uptake

Challenge: Applications are not uniformly distributed geographically. Approximately 81% of the CERP/CERPIT applicants to date from the United States. We have taken a few steps to encourage applicants from non-North American locations.

Progress/Solutions: International uptake is being encouraged by improving financial accessibility and increasing outreach:

- We have updated the listing of academic degree programs to include those from non-North American locations. We used the expanded list to spread the word about the CERP program.
- We introduced a lower fee for applicants from low-income countries. Applicants from countries with low-income economies (as designated by the World Bank[6]) can receive a 50% discount on certification fees.
- In 2019, we will actively solicit funds that can be used to 1) provide a scholarship to offset the annual maintenance fees for CERPs/CERPITs from low-income countries and/or 2) translate some of the key documents into other languages (e.g., Spanish, Chinese, Portuguese).

CERPIT Name and Implications

Challenge: The CERPIT name has caused some dissatisfaction and confusion among applicants. The CERPIT name is not attractive to potential certificants because the "in-training" name implies that CERPITs are practicing at a more junior level than they actually are. There has also been disappointment from some students who are looking for a training apprenticeship, but do not qualify as CERPITs.

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[6] https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

Progress/Solution: The Standards Committee discussed this issue individually and in consultation with the Certification Committee. Based on the quality of applicants and the availability of the PLAR provision, the committee(s) did not feel that changes were necessary at this time. Committee members felt that a CERPIT name change might devalue the CERP designation and make it more difficult for the public to identify the degree to which practitioners have achieved the CERP requirements.

Program Growth/Uptake

Challenge: We are always continuously striving to make sure that we are not exhausting the potential applicant pool within the SER membership. We are also focusing on the number of CERPITs that applied because this number was much lower than projected values.

Progress/Solutions:

We have undertaken a few new initiatives that are aimed to increase program growth and uptake:

- We shifted the timing of the application window by one month to better accommodate fiscal year ends, class schedules, and field seasons. The new application windows are open from February-April and August-October.
- The new Program Alignment and Emerging Professional MOU will allow cohorts of students to apply for CERPIT designation. This will hopefully provide 5-25 CERPIT applications per institution, will assist with alignment of degree programs and the knowledge requirements, and will also spread the word about the program. This also provides students and graduates with a clearly-defined path forward in their professional development.
- Digital leaderboard and skyscraper ads have been developed to allow online marketing in journals.

In 2019 we will also consider taking a number of other steps to focus on this issue, including:

- Focusing on additional external (non-SER) outreach, including paid advertising in journals that may be of interest to practitioners (e.g., Ecological Management and Restoration Natural Areas Journal, Invasive Species Science and Management, Rangeland Ecology, Journal of Applied Ecology, Conservation Biology, Journal of Environmental Engineering, Biological Conservation)
- Expanding the CERP ambassador program to provide greater representation at related conferences and events
- Exploring partnerships to facilitate certification or provide special recognition for those already certified in similar programs (e.g. wetland scientists)
- Creating cooperative programs with chapters to promote certification and provide need-based funding/scholarships for chapter members

- Evaluating an internship program that engages corporate sponsors and gives some preference to CERPs/CERPITs in the hiring process. Marketing this as a potential benefit for CERPITs may also increase the number of applications.

Current Outlook

2018 was a year of progress for the CERP program. We held our first committee elections and launched a number of new initiatives including the new academic institution partnering program, lower-income country discounts, and the Practitioner Insider newsletter. The CERP program is gaining momentum and becoming more widely recognized as the standard in the field, as evidenced by the requirements for CERPs in multiple Requests for Proposals and Requests for Qualifications. Although the applicant numbers were slightly lower than our target, the initiatives launched in 2018 have taken positive steps towards reaching some of our target groups (CERPITs, applicants from outside of North America). We are poised to make even greater strides in 2019.

Acknowledgements

This program would not be possible without our volunteers, who have graciously donated their time to ensure that the CERP program runs effectively:

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Juli Crane	Chris Lenhart	Blaine Rothauser
Paul Davis	Rob Magill	Cassi Saari
Rory Denovan	Robert Magill	Angela Sanders
Lynde Dodd	Mickey Marcus	Dan Savercool
Terry Doss	Tein McDonald	Bill Shadel
Jay Fain	Katie McMahen	Nancy Shaw
Matt Fisk	Mark Vander Meer	Ian Smith
Katherine Fitch	Rob Monico	Chris Taliga

Joshua Tallis	Randy Walsh	Ryan Williams
Mike Toohill	John Wigginton	Bill Young
Ramesh Venkataraman	Seth Wilkinson	

Thanks to our CERP Program Sponsors!

For more information, you can go to our website at www.ser.org/certification or email us at certification@ser.org.