Certified Ecological Restoration Practitioner Program
Year 1 Report

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Prepared for:
SER Board of Directors

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The Society for Ecological Restoration’s (SER’s) Certified Ecological Restoration Practitioner (CERP) program was approved by the Board of Directors in June 2016 and officially launched in January 2017. This report provides an overview of the current CERP program, analysis of the demographics and initial feedback from Year 1 of the program, and recommendations for program improvements.

Current Program Overview

Certification is currently offered based on two levels:

- 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

Applicants for certification (CERP and CERPIT) must achieve minimum requirements for each of the following six elements:

1. **Knowledge Base** – a combination of academic credentials and/or accumulation of knowledge relevant to the profession of ecological restoration (Table 1)
2. **Professional-level Experience** – experience performing restoration project and/or program work, not only in terms of the number of years of experience but also in terms of the depth and breadth of an applicant’s experience
3. **Project Work** – descriptions of project experience (e.g., significant experience in performing pre-project baseline and reference site inventories, participating in project planning and implementation, and monitoring).
4. **References** – demonstration that the applicant is held in high esteem by other restoration practitioners and has exhibited proficiency in ecological restoration.
5. **Ethics and Disciplinary Policies** – agreement to adhere to the SER Code of Ethics and the SER Disciplinary Policy.
6. **Foundations of the Profession** – knowledge and understanding of the fundamental concepts of ecological restoration through the e-learning course (hosted on Litmos).

Applicants must also pay the application fee (Table 2), which is used to offset program administration costs and maintenance. Payments are accepted through the Your Membership (YM) SER website. Applications are accepted during two application windows per year (January-March and July-September). Applications are accepted using Submittable, a third-party application submission/review platform.

Grandfathering allows applicants to substitute missing academic credits with equivalent knowledge gained through other means (e.g., field work, teaching). Applicants must
demonstrate specifically how this equivalency has been achieved. Grandfathering is currently approved through 2022.

Table 1. Knowledge Requirements for CERP Program

<table>
<thead>
<tr>
<th>Category</th>
<th>Credit Requirements*</th>
<th>Course Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Science</td>
<td>15 credits (at least 9 credits in ecology)</td>
<td>General biology (e.g., cell biology, genetics); ecology (e.g., forest ecology, wetland ecology, freshwater ecology, ecosystem ecology); botany (e.g., plant taxonomy, plant physiology); zoology (mammology, wildlife population biology, entomology)</td>
</tr>
<tr>
<td>Physical Science</td>
<td>15 credits (at least 6 credits in soils, hydrology, and/or climate science)</td>
<td>Soil science, hydrology, geology, climate science, physics, chemistry, fluvial geomorphology</td>
</tr>
<tr>
<td>Resource Management and Conservation</td>
<td>12 credits (at least 3 credits in ecological dimensions and at least 3 credits in human dimensions)</td>
<td>Ecological dimensions (e.g., forest management, fire management, range management, management of native or natural communities, invasive species management, conservation of wildlife populations, plant conservation, project planning and management) Human dimensions (e.g., ethics of resource management, human behavior, public administration, interpersonal communications, natural resource policy/law, conflict resolution)</td>
</tr>
<tr>
<td>Quantitative Science</td>
<td>9 credits (at least 6 credits in inventory, monitoring, or assessment)</td>
<td>Sampling theory and design, monitoring and assessment, data management, field techniques, GIS, remote sensing, biometrics, statistics</td>
</tr>
<tr>
<td>Ecological Restoration</td>
<td>6 credits</td>
<td>Ecological restoration, restoration ecology</td>
</tr>
</tbody>
</table>

* A typical 3 credit semester course is based on 40-45 contact hours (3 hours per week for 14-15 weeks). Equivalency of other units can be calculated based on this conversion.
Table 2. Application Fees for the CERP Program

<table>
<thead>
<tr>
<th>Fee</th>
<th>Membership Status</th>
<th>Practitioner</th>
<th>Practitioner-in-Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Application Fee</td>
<td>SER Members</td>
<td>$250</td>
<td>$100</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>$350</td>
<td>$200</td>
</tr>
<tr>
<td>Annual Maintenance Fee</td>
<td>SER Members</td>
<td>$75</td>
<td>$50</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>$100</td>
<td>$75</td>
</tr>
<tr>
<td>Recertification Fee</td>
<td>SER Members</td>
<td>$125</td>
<td>$100</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>$225</td>
<td>$200</td>
</tr>
<tr>
<td>Upgrade from CERPIT to CERP</td>
<td>SER Members</td>
<td>NA</td>
<td>$100</td>
</tr>
<tr>
<td></td>
<td>Non-Members</td>
<td>NA</td>
<td>$150</td>
</tr>
</tbody>
</table>

Certification Maintenance

Both CERP and CERPIT designations are valid for 5 years. Certification can be maintained by earning 50 continuing education credits (CECs) over the 5-year period and paying the annual maintenance fees (Table 2).

Continuing education offerings are a mixture of both live events and archived webinars and trainings (http://www.ser.org/page/CERPapprovedCECs). 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 is not a limiting factor.

Requests for continuing education approval are submitted through Submittable and reviewed by members of the Continuing Education Committee. Pre-approved events are then entered into the SER calendar and promoted to practitioners via email, the website, and social media. Other CECs submitted by CERP and CERPITs are uploaded into their journal on YM so that they can track everything easily. Turnaround time on reviews is about 1-3 weeks.

Application Process and Platforms

During the first application window (January – March 2017), applications were accepted through a custom form in the YM platform. A benefit of this system was that it was integrated...
with SER’s member database (also managed in YM). However, this system was not aesthetically consistent with SER’s branding and users frequently reported that they lost work that should have been saved as a draft. The YM platform also required a significant amount of manual administration by the Certification Program Coordinator to download the data, track completion status, manually assign reviewers, and track the review process.

In order to address these issues, we switched to Submittable, a third-party application submission/review platform, for the second application window (July-September 2017). Submittable is now used for applications, reviews, and continuing education. Some manual administration is necessary to link the Submittable data to the YM database, but the overall experience for both applicants and reviewers is far superior to the previous process.

Program Administration and Governance

The certification program operates under SER’s 501(c)(3) designation as a non-profit organization. Program governance is based upon the certification charter document. The certification program is overseen by the Certification Program Coordinator and administered by the volunteer members of the five standing committees:

- **Certification**: The Certification Committee is comprised of 12-15 certified practitioners or practitioners-in-training. These committee members review all incoming applications and determine whether or not a candidate meets the program requirements.

- **Appeals and Disciplinary**: The Appeals and Disciplinary Committee is comprised of 3-5 certified practitioners or practitioners-in-training. These committee members review all appeals for certification applications and continuing education approvals. The Appeals and Disciplinary Committee members also review any reports of ethics violations (in accordance with the CERP Program Disciplinary Policy).

- **Standards**: The Standards Committee is comprised of 5-7 members including a chairperson who is a certified practitioner. The Standards Committee members review and, if needed, revise the program requirements to ensure that the program standards are meeting the program goals.

- **Continuing Education**: The Continuing Education Committee is comprised of 5-7 members, including a chairperson who is a certified practitioner. These committee members review all requests for continuing education credit approval. Committee members will also work with academic institutions and training organizations to develop curricula for ongoing courses and degree programs.

- **Marketing and Outreach**: The Marketing and Outreach Committee is comprised of 3-5 members, including a chairperson who is a certified practitioner. These committee members work to inform ecological restoration practitioners about the certification program (and its benefits), promote training opportunities, and identify and facilitate opportunities for teaming with other organizations.

First Year Applicant Summary

The CERP program accepted 179 applications and certified 165 CERP/CERPITs in Year 1. The general characteristics of the applicants and certificants are provided in the following sections.
Number of Applicants

During the first year of operation, 179 applications were submitted (154 for CERP and 25 for CERPIT) as presented in Table 3.

Table 3. Year 1 Applications for CERP and CERPIT

<table>
<thead>
<tr>
<th></th>
<th>Applicants in First Window</th>
<th>Applicants in Second Window</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CERP</td>
<td>74</td>
<td>80</td>
<td>154</td>
</tr>
<tr>
<td>CERPIT</td>
<td>18</td>
<td>7</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>87</td>
<td>179</td>
</tr>
</tbody>
</table>

To put this in context, the number of applications from Year 1 were compared to the projections from the CERP Program Business Plan (Figure 1). The total number of applications (179) mirrored the projected “Reasonable Case” scenario from the CERP Program Business Plan (180). This was largely due to the number of CERP applications (154), which approached the projected “Best Case” scenario (168). The number of CERPIT applications (25) was below the projected “Worse Case” scenario (32).

Figure 1. Comparison of Actual and Projected Number of Applications for Year 1

The financial implications of the CERP:CERPIT ratio and a discussion of potential steps to address the low CERPIT uptake are included in subsequent sections.
An additional 81 potential applicants began, but did not complete, an application. A survey was sent to those who started applications but did not finish in order to better understand why they did not complete the process. Unfortunately, too few people responded to enable us to understand what was limiting those people.

**Applicant Demographics**

Demographic information was voluntarily provided by applicants during the application process. Applicants were from 9 countries (United States, Canada, Australia, Chile, Ghana, India, Romania, Colombia, and Denmark. The vast majority of candidates (84%) were from the United States (Figure 2).

![Geographic Distribution of Applicants from Year 1](image)

Applicants were associated with 13 SER chapters. The chapters with the most applicants were the Midwest-Great Lakes and Mid-Atlantic chapters.
Figure 3. Chapter Membership of Applicants from Year 1

*Not reported = no chapter affiliation designated

A little over 1/3 of the applicants were female, however more applicants were male (Figure 4).

Figure 4. Gender Distribution of Applicants from Year 1
The majority of applicants were under the age of 44 for CERPIT or between the ages of 35 and 54 for CERP (Figure 5).

Figure 5. Age Distribution of Applicants from Year 1

Most applicants for both CERP and CERPIT were SER members (Figure 6). Some of those members had been long-standing members, while others joined around the same time as they applied for certification. Unfortunately, we do not currently have a way to track the number of members who join in order to get the member CERP application rate.

Figure 6. Membership Status of Year 1 Applicants for CERP and CERPIT
More CERP had a graduate/professional degree than a bachelor's degree. However, CERPITs were evenly distributed between a bachelor’s degree and an advanced degree (Figure 7).

Figure 7. Highest Degree Earned of Applicants from Year 1

![Bar chart showing degree earned by applicants from Year 1.]

Most CERP were from the private sector; however, government agencies were also strongly represented (Figure 8). The majority of CERPITs were also employed in the private sector.

Figure 8. Sector Affiliation of Applicants from Year 1

![Bar chart showing sector affiliation of applicants from Year 1.]

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 Year 1, only 20 of the 177 applications required an expanded review (16 were subsequently approved and 4 were downgraded to CERPIT). It is important to note that the applications that were rejected were unanimous decisions and did not require expanded review.

The overall approval rate for the CERP program was 92% (Table 4). Approval rates were higher for CERPITs than CERPs, which may be because CERPIT standards are less strict than CERP standards or because applicants were stretching to be designated as a CERP because they knew they could be downgraded to CERPIT.

Table 4. Year 1 Approval Rates for CERP and CERPIT

<table>
<thead>
<tr>
<th></th>
<th>CERP Applicants</th>
<th>CERPIT Applicants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved</td>
<td>138</td>
<td>24</td>
</tr>
<tr>
<td>Downgraded to CERPIT</td>
<td>3</td>
<td>NA</td>
</tr>
<tr>
<td>Unresolved*</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Rejected/Withdrawn</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td>25</td>
</tr>
</tbody>
</table>

*Applications may be unresolved for a variety of reasons. Five were offered downgrades and are deciding whether to accept this designation or reapply for CERP in the future. The other two are compiling supplemental information requested by reviewers but asked for an extension.

Grandfathering

Grandfathering was used in 60% of the applications (108 out of the 179), which was much more frequent than anticipated. Of those who were grandfathered, 51% grandfathered 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 9).
The Ecological Restoration course category was grandfathered much more frequently than the other categories, which were generally evenly distributed (Table 5).

![Figure 9. Number of Categories Grandfathered in Year 1](chart)

<table>
<thead>
<tr>
<th>Category</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Science</td>
<td>28</td>
<td>13</td>
</tr>
<tr>
<td>Physical Science</td>
<td>28</td>
<td>13</td>
</tr>
<tr>
<td>Resource Conservation and Management</td>
<td>31</td>
<td>14</td>
</tr>
<tr>
<td>Quantitative Science</td>
<td>33</td>
<td>15</td>
</tr>
<tr>
<td>Ecological Restoration</td>
<td>96</td>
<td>44</td>
</tr>
</tbody>
</table>

Applicants with a graduate or professional degree tended to only be grandfathered 1 or 2 categories, presumably because they have taken adequate coursework throughout their undergraduate and graduate programs (Figure 10). Applicants with only a bachelor's degree did not demonstrate a similar trend.
Applications with no or limited grandfathering (0 to 2 categories) have a much higher percentage of approval (91-98% approval) than applications with 5 grandfathered categories (56% approval; Figure 11).
Financial Summary

The CERP program was almost self-sustaining in Year 1. This bodes well for the future, when maintenance fees will be an additional income stream. In Year 1, the CERP program brought in $43,243 in application fees (Table 6). We issued promotional codes for the SERCAL chapter and for sponsors, but those were only used by a few applicants (two for the SERCAL promo and one for the sponsor promo).

Table 6. Year 1 Income from CERP and CERPIT Application Fees (USD)

<table>
<thead>
<tr>
<th></th>
<th>CERPIT</th>
<th>CERP</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member</td>
<td>$2,200</td>
<td>$31,493</td>
<td>$33,693</td>
</tr>
<tr>
<td>Non-Member</td>
<td>$800</td>
<td>$8,750</td>
<td>$9,550</td>
</tr>
<tr>
<td>Total</td>
<td>$3,000</td>
<td>$40,243</td>
<td>$43,243</td>
</tr>
</tbody>
</table>
Income was higher than projected in the “Reasonable Case” scenario of the business plan (Approximately $34,000 in new application fees), because more CERPs applied than CERPITs and paid the higher CERP application fee. The CERP:CERPIT ratio (more CERPs than expected, fewer CERPITs than expected) has some implications for this year and for subsequent years. The annual maintenance fees for CERPs are $25 higher than CERPITs so this differential will lead to more income in the near-term. However, encouraging CERPITs to engage early will hopefully promote practitioners who will be certified for their entire career.

The CERP program had two founding sponsors – GZA GeoEnvironmental, Inc. and SWCA. Each of these sponsors provided $5,000 in unrestricted funds to SER (GZA GeoEnvironmental, Inc. provided funds in 2017; SWCA provided funds in 2018). Because these funds were unrestricted, they have not been included in the CERP program income total; however, these sponsorships have supported SER’s mission. We see opportunities to engage additional CERP sponsors in the future.

The CERP program projected expenses were approximately $55,000, but actual expenses were only approximately $44,000. Because this was the first year of operation we had budgeted for some things that were not needed (e.g., $1,000 for certification committee meetings, $6,000 for travel, $1,500 for legal services). We also did not budget for other items that were needed (e.g., intern stipend) and will be included in the budget for subsequent years.

**Outreach and Partnerships**

Marketing and outreach for the CERP program was a mixture 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.

**CERP Program Ambassadors**

In order to facilitate program outreach, we created a CERP ambassador program. 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. In the first year we had 19 CERP program ambassadors (more than 10% of the CERPs/CERPITs). We are so proud of our amazing CERP ambassadors who have presented or made appearances at the following events:

- National Native Seed Conference (Washington, D.C., United States, February 2017)
- SER Central Rockies chapter meeting (March 2017)
- SER Midwest-Great Lakes chapter meeting (March 2017).
- SER Mid-Atlantic chapter conference (August 2017)
- CERP sponsored coffee break at the SER World Conference (Brazil, August/September 2017)
• Native Seed Science, Technology and Conservation conference (Richmond, Surrey, United Kingdom, September 2017)
• Natural Areas Conference (Fort Collins, Colorado, United States, October 2017)
• Restoring the West meeting (Logan, Utah, United States, October 2017)
• SER Southeast Chapter Meeting (October 2017)
• Snake River Birds of Prey National Conservation Area annual meeting (Boise, Idaho, United States, October 2017)
• Great Basin NPP Workshop (United States Bureau of Land Management attendees, November 2017)
• Kuwait Arid Lands Symposium (November 2017)
• Invasive Species Summit: Restoration and Long-term Management in New York (November 2017)
• SER Texas Chapter Meeting (November 2017)
• ESP World Conference on Ecosystem Services (China, December 2017)

Thanks to our CERP program ambassadors: Nancy Shaw, Anne Halford, Connie Bersok, Michael Toohill, Dave Polster, Mickey Marcus, Jessica Schuler, Julie Marcus, Paul Davis, Joe Berg, Michael Hughes, Jennifer Franklin, Carolina Murcia, Jim Furnish, Chris Lenhart, Lindsay Haist, Keith MacCallum, Rob Monico, and Ondrea Hummel.

Potential Academic Institution Partnerships

In parallel to the program launch, we have also been actively engaging potential partners to facilitate cooperative agreements with academic institutions. Partnerships with academic institutions are intended to encourage institutions with degree programs related to ecological restoration to adopt or align themselves with the knowledge requirements of the CERP program. As developed, these knowledge requirements were intended to articulate the core coursework necessary to have a thorough understanding of the processes required to implement high quality restoration projects.

We have initiated conversations with University of Victoria, University of Minnesota, University of Wisconsin-Madison, Niagara College, and Trent University to develop Memoranda of Understanding (MOU) to delineate potential partnerships. These institutions were selected as early adopters due to their enthusiasm and the alignment of their required courses with the CERP program requirements. The MOUs would indicate that the degree program(s) at that institution would satisfy some/all of the CERPIT knowledge requirements and, as such, graduates of that degree program could feel confident that they would likely qualify as a CERPIT should they apply. SER and the academic institutions would cross-promote based on the agreement.
The groundwork for those MOUs was laid in 2017 and the MOUs are expected to be implemented in 2018.

Continuing Education Partnerships

We currently have pre-approved all of the SER and available SER chapter archived webinars. We have also pre-approved 26 of the relevant United States Department of Agriculture (including Forest Service and Natural Resources Conservation Service) webinars. We have also made substantial progress on obtaining archives or pre-approval agreements for webinars and trainings from CSRA, The Nature Conservancy, the National Oceanic and Atmospheric Administration, the U.S. Fish and Wildlife Service, and the Great Basin Fire Science Exchange.

In addition, we have initiated discussions with other organizations that frequently offer trainings (Morton Arboretum, New York Botanical Garden, Aldo Leopold Foundation, EarthCorps).

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 Challenges and Recommendations

Although we have heard very positive feedback about the first year of the program, there are some opportunities to address some of the program challenges. Each of these main challenges is presented below and some possible solutions are recommended.

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.

**Possible Solutions:** This issue can be addressed in two ways: 1) Changing the “in-training” name and/or 2) adding a mid-level certification designation.

- Changing the CERPIT name would focus on removing the unflattering “in-training” name. Some potential alternate names for CERPIT could include “Certified Ecological Restoration Technician” or “Certified Ecological Restoration Associate Practitioner.”
- Alternately, we could add a middle level certification that would be targeted toward those who meet the experience requirement but not the knowledge requirement. This

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1 [http://www.conservationwebinars.net/previous-webinars/webinarSearch?SearchableText=&&branding=&Subject=&getListOfCEUsNotExpired3=Society+for+Ecological+Restoration+%28SER%29&getWebHost=&portal_type=Webinar&sortBy=webinarDate&sort_order=reverse&formSubmitted=1&review_state=published](http://www.conservationwebinars.net/previous-webinars/webinarSearch?SearchableText=&&branding=&Subject=&getListOfCEUsNotExpired3=Society+for+Ecological+Restoration+%28SER%29&getWebHost=&portal_type=Webinar&sortBy=webinarDate&sort_order=reverse&formSubmitted=1&review_state=published)
designation would be an end pathway (i.e., these certificants would not upgrade to any other designation). A new certification level will require developing a new set of standards that apply to that new middle-level certification.

**International Uptake**

**Challenge:** Applications are not uniformly distributed geographically. Approximately 84% of the CERP/CERPIT applicants were from the United States. The low number of applicants from non-North American locations should be addressed so that the diversity of our certificants reflects the diversity and international nature of SER and the field of ecological restoration.

**Possible Solutions:** International uptake will be addressed by improving accessibility (language, financial) and increasing outreach.

- One of our first priorities will be to update the listing of academic degree programs to include those from non-North American locations. We will then use that list as a starting point to contact key practitioners and educational institutions to encourage them to spread the word about the CERP program.
- We will also highlight CERPs/CERPITs from non-North American countries on social media and in external communications. This will bring a spotlight to those doing great restoration work in other locations and may avoid the perception that the CERP program is only relevant in North America.
- If we can secure or allocate resources, we would like to translate some of the key documents into other languages (e.g., Spanish, Chinese, Portuguese)
- In the near future, we could adopt a lower fee for applicants from low-income countries. We are currently recommending a 50% discount for applicants from countries with low-income economies (as designated by the World Bank2). We would also like to actively solicit sponsorship funds that could be used to provide a scholarship to offset the annual maintenance fees for CERPs/CERPITs from low-income countries.

**CERPIT Uptake**

**Challenge:** The number of CERPITs that applied was much lower than projected values. We are not quite sure why, but initial conversations with some candidates indicated that they could not fulfill either knowledge or experience and so did not apply. Others indicated that the application fee was a barrier and they would prefer to wait until they were employed by an organization that would pay on their behalf.

**Possible Solutions:** The possible solution to this problem includes an increase in targeted marketing and some strategic partnerships.

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• We will be completing the MOUs with targeted academic institutions to usher graduating classes through the application process. 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.

• We will run a promotion or contest for recent graduates to encourage them to apply. Targeted promotional materials will include benefits that would be of interest to students, including networking.

• A CERPIT internship program has also been considered as part of the professional development component of SER. Marketing this as a potential benefit for CERPITs may also increase the number of applications.

Overall Program Growth/Uptake

**Challenge:** While we met our “Reasonable Case” business plan scenario, we are concerned that we could quickly tap out our own membership and the program could wither if we do not expand our outreach and non-member uptake.

**Possible Solutions:** Based on feedback from Year 1, we would like to shift the timing of the application window by one month to better accommodate fiscal year ends, class schedules, and field seasons. The new application windows would be February-April and August-October. Additionally, we can improve program growth and uptake through focused and sustained outreach. Specifically, we will be focusing on:

• Fostering a more engaged and active Outreach Committee
• 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)
• Identifying certain priority groups of “most likely potential candidates” and targeting outreach/promotions to those groups
• Increasing international outreach and promotions (as discussed earlier)
• Increasing program demand (see below)
• 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
• Building an internship program that engages corporate sponsors and gives some preference to CERPs/CERPITs in the hiring process
• Creating a more visible online campaign addressed at potential employers or clients of CERPs advertising the Certification program and the benefits of hiring CERPs and CERPITs

Program Recognition

**Challenge:** The program is still relatively new, so we need to continue to develop program demand. Although we have had some productive meetings with agencies like the U.S. Bureau of Land Management, we could improve project demand if agencies and organizations would more emphatically endorse the certification.

**Possible Solutions:** Program demand can be solidified by encouraging endorsements in the short-term and more substantial agency/organization buy-in in the future. Specifically, we can take a number of steps to establish the CERP program as the standard in the field of ecological restoration.

• Encourage government agencies (initially in the United States and Canada) to endorse/recognize the program both for their staff and at the contracting/hiring levels
• Ask for not just endorsement, but positive recognition/increased consideration in hiring processes for applicants who are CERPs
• Encourage and eventually require that restoration land management decisions be made only by those who hold CERP credentials
• Reach out to more SER business members and other potential partners to promote the value of CERP from the business perspective

User Experience

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

**Possible Solution:** Create single sign on to create a more user-friendly experience.

Program Efficiency

**Challenge:** There are several portions of the application/review process that require manual administration by the Certification Program Coordinator.

**Possible Solution:** Use an API to automate certain tasks to reduce the amount of manual entry.
Committee Volunteers

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

**Possible Solutions:** Now that we have 165 CERPs/CERPITs (and growing) we have many more potential volunteers to engage. In 2018, we will hold our first election for new committee members (one third of the committees will be elected). This election period will allow us to engage more CERPs in leadership of the program. We will target specific CERPs to run for seats on CERP committees in the annual election.

This election period will also allow us to create a set of expectations for committee members (what they can expect from SER and what we can expect from them). In order to assist with the development of this document we will engage all committee members (either in Basecamp or via survey) to understand how to better serve the committees, and how the committees can better serve CERP moving forward.

CERP/CERPIT Benefits

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

**Possible Solutions:** This year we will be launching the CERP Practitioner newsletter, creating some CERP-branded merchandise, and organizing some CERP-specific networking/recognition events. We will also be reaching out to our CERPs/CERPITs via a survey to see what benefits they would be most interested in and to make sure that our certification remains a good value.

Feedback from our First Class

Perhaps, the best way to judge the program success is by listening to our CERPs and CERPITs. This is what they had to say:

> “Having a structure for professional development is really important, especially in such a complex field”

– Regina Wandler, CERPIT, 2017
“Perception matters. Having a certification helps me stand out.”

-- Bill Shadel, CERP, 2017

“I like the tangible evidence third party certification provides that indicate my qualifications in this particular profession.”

-- Ondrea Hummel, CERP, 2017

“This program elevates the importance of ecological restoration work globally. By being part of SER I can support the growing exposure of the importance of ecological restoration.”

-- Graham Gidden, CERPIT, 2017

“The lack of standardization/accreditation in the restoration field is something I was hoping would be addressed and CERP is a good start.”

-- Heather Davis, CERP, 2017

“This certification will allow a standard of ecological restoration to exist and moving forward will be the industry standard for practitioners in a global community.”

-- Robert Monico, CERPIT, 2017
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For more information, you can go to our website at www.ser.org/certification or email us at certification