NALMS CLM/CLP Handbook

Professional Certification Program
North American Lake Management Society

Ver. 1.0
7 August 2021
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Appendix 1: NCEU table screenshot
NALMS AND NALMS PROFESSIONAL CERTIFICATION PROGRAM (PCP)

The mission of North American Lake Management Society (NALMS) is to forge partnerships among citizens, scientists, and professionals to foster the management and protection of lakes and reservoirs for today and tomorrow.

NALMS is not focused on professionals, academic researchers, or any smaller interest group alone. Rather NALMS is a melting pot, welcoming anyone interested in lakes.

NALMS goals are:

1. To promote the exchange of information on aspects of managing lakes and their watersheds.
2. To promote public awareness of lake ecosystems.
3. To encourage public support for promoting management of lakes and their watersheds.
4. To provide guidance to agencies involved in management activities for lakes and their watersheds.
5. To boost the professional status of those engaged in managing lakes and their watersheds.
6. To identify needs and encourage research on lake ecology and watershed management.

The NALMS Professional Certification Program (PCP) was established to aid these goals through the identification of individuals who have exceptional training and experience in lake ecology and management. The three-year recertification system guides the certified professionals to continue their professional growth and contribution to the NALMS mission by sharing their lake management expertise beyond their daily professional obligations.

To gain a NALMS certification, an individual must demonstrate training and expertise through a specified combination of education and experience. To maintain certification, one must continue learning through the acquisition of NALMS Continuing Education Units (NCEUs). This learning is best accomplished by participation in NALMS programs, but alternative sources are recognized with proper documentation. While initial certification requires a substantial commitment on the part of the applicant, NALMS places a high premium on continuing education for recertification to ensure that the highest standards of professional awareness and performance are maintained.

Certified Lake Manager (CLM)

The term “lake manager” generally refers to a person who manages a pond, lake, or reservoir and its watershed and makes decisions that affect the quality and uses of the waterbody. A typical lake manager is primarily responsible for making recommendations to the governing management body regarding the implementation of a management program and for supervising or conducting that implementation. A NALMS Certified Lake Manager (CLM) is a highly competent lake manager who has satisfied the NALMS certification requirements in terms of scientific knowledge as well as professional experiences in direct, on-site lake management.

Certified Lake Professional (CLP)

NALMS defines a “lake professional” as a person who contributes to the comprehensive management of ponds, lakes, or reservoirs and their watersheds by providing critical technical or socioeconomic data. A lake professional specializes in one or more specific areas of lake and watershed science (e.g., taxonomic identification, wetland characterization, or research and development of new techniques) and is primarily responsible for providing expert insights into
lake ecology and ecological services and making technical recommendations to the governing management body or its representatives, such as a CLM or an implementation coordinator. A lake professional is typically not responsible for lake-specific, on-site management actions.

A NALMS Certified Lake Professional (CLP) is a highly competent lake professional who has satisfied the NALMS certification requirements in terms of scientific knowledge as well as professional experiences in one or more subfields of lake science, such as aquatic pesticide application and development, fisheries technologies, field biology (e.g., taxonomic identification and habitat delineation), and water quality sampling and analyses.

**CLM vs. CLP**

The minimal educational requirements for CLM and CLP are the same, while professional experiences, current roles, and projected career paths of applicants determine whether CLM or CLP is appropriate. NALMS considers CLMs and CLPs equivalent in their professional competencies.

If a CLM wishes to switch to CLP due to a change in their career path, they must submit a request to PCP with a written justification with supporting documents showing that they have earned substantial knowledge and professional experiences in one or more subfields of lake science to satisfy the requirements for a CLP. A CLP applying to switch to a CLM must do the same on their knowledge and professional experience in lake-specific, on-site lake management to satisfy the requirements for a CLM.

NALMS only issues and recognizes one professional certification (CLM or CLP) per qualified active member at a time. One may not claim to be a CLM and a CLP simultaneously.

**CLM/CLP ELECTRONIC SEALS**

NALMS issues electronic seals that can only be used by members in good standing who are currently certified as a CLM, CLP, provisional CLM (pCLM) or provisional CLP (pCLP).

Use of the seal is protected under the rules of NALMS. Use of the seal is a privilege that can be revoked by NALMS if used in an unethical and/or unprofessional manner. Any alteration of the original seal design as issued by NALMS, including but not limited to the addition of words (e.g., company names) or colors, is strictly prohibited. In case of name changes, NALMS will issue a new electronic seal free of charge upon request.

Use of the seal indicates that the (p)CLM or (p)CLP takes professional responsibility for the work and that, to the best of his or her knowledge and ability, the work has been prepared in a manner using normal and customary standards of practice.

**General Rules**

- When used in official documents (e.g., proposals and contracts), the Seal shall always be signed, dated, and accompanied by the expiration date of the current certification.
- When used in business cards, brochures, flyers, etc., and on web pages, the Seal shall be displayed prominently and its details (e.g., certification number) clearly legible. The Seal must be removed promptly from such materials upon expiration of the certification or revocation of the Seal usage privilege by NALMS.
Legal Implications
Use of the seal does not imply or attribute any legal liability to NALMS for acts performed by (p)CLMs or (p)CLPs. It confers no duty on NALMS to defend any (p)CLM or (p)CLP against any potential legal liability.

If any (p)CLM or (p)CLP is negligent, they will be solely responsible for defense against the negligence.

CLM/CLP CERTIFICATION PROCESS
To earn initial certification as a CLM or CLP, one has to satisfy both 1) educational and 2) professional experience requirements. Details of these requirements are provided below.

1) Educational Requirements
The educational requirement has two elements: obtaining at least a four-year undergraduate degree (B.S., B.A. or equivalent) and acquiring 44 academic credits, with at least 6 academic credits in each of the 5 educational categories (6 × 5 = 30 credits total) plus 14 additional academic credits in one category (the CLM or CLP’s “major”). This means that 20 or more credits are required in one of the 5 categories.

Academic credits from institutions whose credit accounting systems differ greatly from typical North American systems and training in non-credit-bearing courses (e.g., courses offered by university extension services) will be converted to equivalent North American academic credits by PCP based on contact hours (duration of regular class meetings excluding breaks).

The 5 educational categories are:

1. Technical Water Resources (lake) Science: A CLM/CLP must have an understanding of the elements and functions of aquatic systems. This understanding should come from training in disciplines directly related to aquatic science or engineering and could include such courses as water chemistry, taxonomy of aquatic organisms, physiology, water treatment, or lake management.

2. Technical Watershed (land) Science: A CLM/CLP must have an understanding of watershed features and processes which affect lakes. This understanding should come from training in the technical aspects of watersheds and could include such courses as soil science, wetlands science, taxonomy of terrestrial organisms, land use planning, watershed management, or erosion control.

3. Communication: A CLM/CLP must have the ability to communicate concepts, findings, and recommendations to interest groups and governing organizations. This ability should come from training in a variety of communication modes, as courses in general, science, or cross-cultural communication; public speaking; composition or writing; computer science; and education.

4. Business and Management: A CLM/CLP must comprehend the business and management aspects of lake and watershed management. This comprehension should be founded in the knowledge of business and management principles and could include courses in economics, banking, accounting, human resource management, or business
planning. Coursework or credit-bearing internships focused on grant writing, preparation of requests for proposals (RFPs) and/or proposals in response to RFPs also apply to this category.

5. Policy, Legal, and Government: A CLM/CLP must have a working knowledge of the governmental and legal frameworks under which they function and be familiar with the policies that affect lake management. This knowledge and familiarity with the processes for formulating and implementing laws and regulations could come from courses and credit-bearing internships in organizational structure, political science, public administration, environmental law, or governmental processes.

Meeting the Educational Requirements
There are three methods to satisfy the 44-credit requirement:

Method 1
Coursework from an accredited college or university is accepted at the credit level listed on an OFFICIAL transcript (scanned images are accepted; unofficial transcripts are NOT acceptable), provided that the applicant received a course grade of C or higher. Official transcripts for all such coursework must be provided with the application. During the online application process, applicants are required to partition their academic courses among the 5 categories in which education must be demonstrated.

Method 2
Where coursework from a degree program is insufficient to meet the educational requirements above, PCP-approved NCEUs may be substituted. Please use the recertification application form, which allows you to list NCEU-eligible experiences and their corresponding NCEUs. The acceptability of NCEUs and the amount of credit to be awarded is dependent upon a review of supporting documents, such as a detailed course or workshop description, a program/agenda, or a syllabus.

After PCP has approved NCEUs to be used for this purpose, the applicants must partition the approved NCEUs among the five educational categories in the online application system.

There are restrictions on the acquisition and use of NCEUs to meet the 44-credit requirement, including:
- In the Authorship category, no multiple credits are granted for highly identical items of the same type (e.g., multiple publications based on the exact same dataset).
- Publications must be submitted for review.
- Evidence of service accomplishments (e.g., appointment to an international/national/regional advisory board) must be officially documented.

Method 3
Where coursework and NCEUs are still insufficient to satisfy the educational requirements, the applicant’s experience, including credit-bearing internships with no official documentation of learning outcomes or learning activities and non-credit-bearing internships, both at the college level or above, may be substituted if it is clearly relevant and illustrates competence in the educational categories where deficiencies remain. This
method is intended primarily for those with extensive experience through a lake management career, while most likely having attended college at a time when environmentally-focused curricula were rare (e.g., graduated from a civil engineering program focused on hard structures). It may also be useful for those who gained their business or organizational experience through years of running a business or working within an institutional framework.

To be awarded educational credit for work experience, the applicant must submit clear documentation of how the educational requirement has been met through experience. It is not sufficient to merely note several years of activity in the field. Rather, documentation should provide information necessary to convince PCP of the applicant’s professional experience in any educational area for which sufficient course work or NCEUs are lacking.

2) Professional Experience Requirements

The professional experience requirements are a minimum of three years of full-time employment in a position that meets the description of a lake manager or lake professional. Explicit involvement in the decision-making processes in lake and/or watershed management, where lake/watershed needs are assessed and programs to meet them are developed and/or implemented, is essential. It is not considered sufficient to simply supply general, non-technical information for use by others, pass on the recommendations of others for implementation, or operate equipment used in the implementation. Additional CLM- or CLP-specific experiences are explained below:

CLM
Qualifying lake manager experience must include project-wide decision making in nearly all phases of a project. Prospective CLMs do not necessarily have to be in charge of any particular phase, but they must be a major driver of decisions.

CLP
Qualifying lake professional experience must include decision-making in the appropriate technical phase(s) of a project pertinent to their specific expertise, although prospective CLPs do not necessarily have to be in charge of any particular phase.

PROVISIONAL STATUS

An applicant who does not meet CLM or CLP requirements but has the potential to meet those requirements within 3 years through additional training or work experience can be awarded provisional status as a Provisional Lake Manager (pCLM) or Provisional Lake Professional (pCLP). Such status will be conferred for a period not to exceed 3 years, matching the recertification period for certified individuals. Adjustment of this 3-year limit may be requested by following the same procedure as the adjustment of the 36-month recertification window (refer to Recertification Timeline section below). Toward the end of the 3-year provisional period, the pCLM or pCLP can apply for full certification while skipping the educational requirement section, which was vetted when they applied for the provisional certification. If an application to convert to full certification status is not submitted before the expiration of the provisional certification, the provisional certification is voided. This shall not preclude any former pCLM or pCLP from applying for full certification as a brand-new applicant.
FEE STRUCTURE
The application fee for either the CLM/CLP designations is $250. All applicants must be NALMS members or submit a membership application and fee with their application for CLM/CLP approval. A check or money order, made payable to NALMS, must be submitted with the application. If either the CLM/CLP or provisional CLM or CLP (pCLM or pCLP) designation is not granted, $200 will be refunded. If you apply for a pCLM or pCLP (satisfies the education component but not the experience component), the application fee is $175. When pCLM or pCLP is granted to a candidate who applied for CLM/CLP and paid the $250 fee, a $75 refund is issued.

All fees above are as of July 2021 and subject to change.

DECISION PROCESS
PCP is comprised of CLMs and CLPs who serve as volunteer evaluators. PCP evaluators receive applications from the PCP Lead and vote on each candidate based on their review of the application and the requirements described in this handbook. A majority vote among the voting PCP evaluators is required for certification. PCP Lead is authorized to contact or delegate contact with the applicants and their listed references to gather additional information and to offer provisional status (pCLM or pCLP) as appropriate where full CLM/CLP certification is not approved. A PCP decision is usually reached within 60 days of receipt of the application; however, extenuating circumstances may arise that delay the decision. There is no time limit for information gathering and review.

RECERTIFICATION TIMELINE
Certification is valid for the remainder of the year certified/recertified plus three calendar years. Recertification must be approved by the end of the third calendar year to avoid a gap in certification. E-seals must not be used if a certification has lapsed.

A recertification application requires 50 NALMS Continuing Education Units (NCEUs) from the last 36 months leading to the date of application. Webinars count towards NCEU as long as they are properly documented.

For example, if one applies for recertification on 1 September 2021 in advance of upcoming expiration on 31 December 2021, they may claim NCEUs earned between 1 September 2018 and 1 September 2021. NCEUs dated more than 36 months before the recertification application will not count towards the 50 NCEUs required. Adjustment of the 36-month window may be requested by the applicant in case of life events that resulted in medical or family leave (or equivalent if self-employed) or a significant workload reduction. Please submit a letter explaining the situation and the affected period(s) along with your recertification application.

A note on achieving NCEU’s during the time of COVID-19: personal/family illness and job loss/reduction are valid reasons to ask for adjustment for the 36-month window to earn the 50 NCEUs. Even if you and/or your family have not been directly affected by COVID, if you have a significant reduction in available time for work and continuing education due to a lack of outside care providers for their dependents during a shutdown, that would be a valid ground for an
adjustment request. Also, note that webinars count towards NCEU as long as they are properly documented.

Because of the increased society business related to the annual symposium in November, followed by the holidays, it is highly recommended that you submit your recertification application before early October of the expiration year. Your NCEUs from the annual symposium during that year may be claimed for your next recertification.

**Eligible Periods for NCEUs**

NCEUs may not double count towards two consecutive recertifications. For example, if you renew on 1 Oct 2017 and then on 1 Feb 2020, you cannot claim towards the 2020 recertification the NCEUs that were earned between 1 Feb 2017 and 1 Oct 2017 and already claimed for the 2017 recertification. For this reason, it is beneficial for applicants to submit recertification applications around the same time of the year.

<table>
<thead>
<tr>
<th>Date of recertification application:</th>
<th>Eligible NCEUs are earned between:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Sep-2019</td>
<td>1-Sep-2016 through 1-Sep-2019</td>
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<tr>
<td>10-Jan-2020</td>
<td>10-Jan-2017 through 10-Jan-2020</td>
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</tbody>
</table>
REINSTATEMENT OF EXPIRED CERTIFICATION

A NALMS member whose CLM or CLP had expired may reinstate the certification if a recertification application is received within one year of the expiration date and approved by PCP. An additional late fee of $75 is added to the regular recertification application fee ($75).

Reinstatement requires 50 NCEUs over the 36 months leading to the expiration date plus 1.4 NCEUs per lapsed month. For example, if a CLM/CLP expired on 31 December 2020, and a reinstatement application was submitted on 31 March 2021, the applicant needs to have earned 54.2 NCEUs over the last 39 months, between 1 January 2018 and 31 March 2021.

A complete initial application and fee ($250) will be required to revive CLMs and CLPs that have lapsed beyond 1 year. The application will be evaluated as if the applicant is a brand-new candidate for a CLM/CLP, based on the current evaluation criteria, not those at the time of the original certification.

APPLICATION CHECKLISTS

Initial (p)CLM/CLP Application

Step 1: Complete the Online Application Form
The online application form includes the following sections. Please have relevant documents ready at hand when you start the online application process and select the preferred payment method on the first page of the online application form.

- Contact Information
- College Education
- Course Work
- Continuing Education Units (if using Method 2 to satisfy the 44-credit requirement; only use the NCEUs pre-approved by PCP)
- Experience
- Employment

Step 2: Pay the Certification Fee and Retain the Receipt
The current certification fees (as of July 2021) are $175 for pCLM/pCLP and $250 for CLM/CLP. Refer to the Fee structure section for details. You may pay by check or use our online payment gateway. Please select the preferred payment method on the first page of the online application form. After submitting the completed form, the confirmation page will include a link to pay online if you chose the option. If you pay by check, the payment receipt will be acknowledged by NALMS via email.

Step 3: Upload Supporting Documents
Upon completion of Step 1, you will receive a confirmation that includes a URL to upload your supporting documents. You must then upload supporting documents for your application as a single PDF file that is < 10 MB in size.
Required:
1. Application fee receipt
2. Official transcripts
3. Current resume (2 pages maximum)

Recommended/optional:
1. Certificates of completion for major continuous education courses, workshops, etc.
2. Other documents to support major accomplishments claimed in the professional experience section, such as copies of publications and reports. For documents exceeding 10 pages, include only the table of contents and the executive summary. PCP will request the entire document if deemed necessary during evaluation.
3. URLs in the online application form and resume for documents that are publicly available online.

Step 4: Reply to the Email from PCP Lead
You will receive an email from PCP Lead containing a list of supporting documents uploaded that are visible to the NALMS PCP. The applicant must reply to this message, confirming that all supporting documents have been uploaded.

Evaluation by PCP will start only after:
1. The payment receipt, official transcripts and resume are uploaded.

AND

2. PCP Lead receives a positive confirmation email from the applicant stating that all supporting documents have been uploaded and that their application packet is complete.

Recertification Application

Step 1: Download and complete the NCEU form

- You must have earned ≥ 50 NALMS Continuing Education Credits (NCEUs) over the 36 months leading to your recertification application.
- Click here to download the NCEU form.

Step 2: Complete the Online Recertification Form
Access the online form at https://www.nalms.org/nalms-certification-program/nalms-recertification-application/. Select the preferred payment method at the end of the form. After submitting this form, the confirmation page will include a payment link if you chose online payment.

Step 3: Pay the Recertification Fee and Retain the Receipt
The current recertification fee is $75. You may pay by check or use our online payment gateway. If you pay by check, the payment receipt will be acknowledged by NALMS via email.
Step 4: Upload Supporting Documents
Upon completion of Step 3, you will receive a confirmation that includes a URL to upload your supporting documents. You must then upload supporting documents for your application as a single PDF file that is < 10 MB in size.

**Required for all:**
1. Current resume (2 pages maximum)

**Required if claiming applicable NCEUs:**
1. Certificates of completion for courses, workshops, etc. Add a separate course/workshop description and the contact hours if they are not evident in the certificates.
2. Copies of peer-reviewed journal articles except for those in Lake and Reservoir Management (copy URL onto the NCEU form instead if it is an open-access article)
3. Copies of official reports and other publications (minimal requirement: equivalent to a typical LakeLine article in quality and length)
   - For documents exceeding 10 pages, include only the table of contents and the executory summary. PCP will request the entire document if deemed necessary during evaluation.
   - Documents that are publicly available online should be included as a URL in the NCEU form instead.
4. Supporting document(s) for participation in lake management permitting effort
5. Supporting document(s) for participation in an appointed task force or committee

After submitting this form, you will receive a confirmation page that includes a link to upload your NCEU form and supporting documents.

Step 5: Reply to the Email from PCP Lead
You will receive an email from PCP Lead containing a list of supporting documents uploaded that are visible on the NALMS side. The applicant must reply to this message, confirming that all supporting documents have been uploaded.

Evaluation by PCP will start only after:
1. The payment receipt is uploaded.

   **AND**

2. PCP Lead receives a positive confirmation email from the applicant stating that all supporting documents (of any) have been uploaded and that their application packet is complete.

**Application to Remove Provisional Status (pCLM to CLM OR pCLP to CLP)**
The full CLM/CLP certification has two requirements: education and experience. A pCLM or pCLP has already satisfied the education requirement.
Step 1: Contact NALMS
Email info@nalms.org to make a special arrangement to pay for the recertification fee (currently $75). If you skip this step, you will be charged the regular fee for initial certification (currently $250).

Step 2: Complete the Initial Application Online Form
Access https://www.nalms.org/nalms-certification-program/nalms-certification-application/ to submit detailed information on your professional experience that you gained in the last three years.

After you have made the payment, please indicate in the application system that you are applying for CLM/CLP and complete all sections of the application EXCEPT the educational requirement section (tallying of academic credits and submission of official transcripts). Please upload the fee payment receipt and relevant supporting documents for your professional experiences, such as training certificates, conference abstracts, publications, and reports (if very long, an executive summary and a table of contents will suffice. Much of these experiences will overlap with the 50 NALMS Continuing Education Units (NCEUs) required every 3 years for regular recertifications after the conversion, but the PCP evaluators will be particularly looking for solid professional growth as an early career professional.

Step 3: Upload Supporting Documents
Upon completion of Step 2, you will receive a confirmation that includes a URL to upload your supporting documents. You must then upload supporting documents for your application as a single PDF file that is < 10 MB in size.

Required:
1. Application fee receipt
2. Current CV/resume

Recommended/optional:
1. Certificates of completion for major continuous education courses, workshops, etc.
2. Other documents to support major accomplishments claimed in the professional experience section, such as copies of publications and reports. For documents exceeding 10 pages, include only the table of contents and the executory summary. PCP will request the entire document if deemed necessary during evaluation.
a. Long documents that are publicly available online should be included as a URL in the online application form and/or CV/resume).

Step 4: Reply to the Email from PCP Lead
You will receive an email from PCP Lead containing a list of supporting documents uploaded that are visible on the NALMS side. The applicant must reply to this message, confirming that all supporting documents have been uploaded.

Evaluation by PCP will start only after:

1. The payment receipt is uploaded.
AND

2. PCP Lead receives a positive confirmation email from the applicant stating that all supporting documents have been uploaded and that their application packet is complete.
### APPENDIX 1: NCEU TABLE SCREENSHOT

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<th>No.</th>
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*Note: The table contains detailed information related to NCEU, including specific metrics and standards.*
Appendix 2: PCP handbook revision history

(to be populated as the handbook goes through revisions)