



The Certified Environmental Professional

The Newsletter of the Academy of Board Certified Environmental Professionals

<http://www.abcep.org>

December 2017

President's Message

Greetings Fellow CEP's! We conducted our second in-person Board of Trustees (BOT) meeting of 2017 in October in Lake Hopatcong, New Jersey. The meeting was hosted by Irv Cohen a long time CEP and ABCEP advocate. The day long meeting covered multiple topics including our Strategic Plan:

Vision. ABCEP is the lead organization certifying environmental professionals; maintaining exemplary standards of ethics and technical practice; and supporting individuals, our profession, and the public relying upon our services.

Mission. ABCEP is dedicated to serving the public and our profession globally by conferring the CEP credential upon meritorious environmental professionals found to meet exemplary standards of ethics and technical practice.



Elizabeth R. Johnson
ABCEP President

Strategic Priority	Objectives
Establish and Promote Recognition of CEPs	<ul style="list-style-type: none">• Gain state and Federal recognition of CEP in regulatory requirements• Gain state recognition by a national standards organization• Increase CEP identification and value through improved communications
Expand Partnerships and Alliances	<ul style="list-style-type: none">• Realize efficiencies in marketing and training opportunities through partnerships• Collaborate with organizations that may increase and expand ABCEP membership
Expand Member Services	<ul style="list-style-type: none">• Provide career growth and networking opportunities for ABCEP membership• Initiate financial service options and benefit options for ABCEP membership• Retain and diversify membership

Our next in-person BOT meeting will be in Tacoma, Washington in March 2018. This meeting coincides with the NAEP 2018 conference. We appreciate the relationship we continue to have with an NEAP.

One thing that I've been thinking about lately is one of the criteria to be a CEP - the years as a responsible supervisor in charge. To me that means manager of projects and being accountable for them. But we all know that in order to be truly successful you can't be just a manager, you have to be a leader! What a great opportunity we have to be in the fellowship of so many wonderful leaders. Isn't that really what propels people forward in their careers? So, look around you look for the other leaders within your

organization and encourage them to be part of our CEP fellowship.

Until Next Time! Elizabeth R. Johnson, CEP, PWS, ABCEP President

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Inside:

- **Survey said...**
- **Maintaining Your Status as a Certified Environmental Professional**
- **Facing the "Wicked Problem" of an Inland River: Managing the Skagit River in Washington State**
- **Meet the newest BOT Member - Anna Kohl**
- **Newsletter Topics for 2018**
- **Accepting nominations for 2018 Emerging Environmental Professional and Kramer Awards**
- **Call for Articles - CEPs in Industry**

.HAPPY.
HOLIDAYS

from the ABCEP Board of Trustees

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Alan Ewert

Anna Kohl

Tina McIntyre

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Jim Yawn

(Anna is our newest BOT member -
check out her bio on page 14)

Survey said... ..

In October we posted a survey online to obtain input from our members regarding the newsletter, focused on publication frequency and content.

The results are summarized below.

Thank you to those of you that took a few brief moments to share your thoughts.

Representative questions and responses:

How often would you like to receive the newsletter:

- ➔ 33% Monthly
- ➔ 33% Bi-Monthly
- ➔ 33% Quarterly

What topics/themes would you like to see showcased in newsletter?
(top 5 responses shown)

- ➔ Areas of Practice - Regulatory
- ➔ Technical Specialties - NEPA
- ➔ Areas of Practice - Construction/Industry/Transportation
- ➔ Regulatory Changes - air quality, water quality, NEPA streamlining, Ecosystem protection
- ➔ Technical Specialty - Historic Preservation

Would you like to know more about the members of the BOT?

- ➔ 67 % - Yes
- ➔ 33% - No

Other areas of interest/focus you would like to see in the newsletter:

- ➔ CEP Highlight - 1 CEP per month, bio/interview, why became a CEP
- ➔ Environmental health and safety
- ➔ What CEPs/CEP-ITs are doing and interested in

Distribution = all ABCEP members (295+)
Responses received = 7

Maintaining Your Status as a Certified Environmental Professional

Richard Burke, CEP

Acknowledgement - Thank you to Board Member Irv Cohen, and past Board Members Peyton Doub and Don Deis for their previous ABCEP Maintenance Program Newsletter articles, which form the basis for some of the text rephrased here.

It's that time again. **It is time to account for those activities that you participated in during 2017 so you can maintain your CEP certification.** Documenting that you spend at least 40 hours over the year maintains your status as a CEP. If you have already done this, good for you. Now all that remains is for you to submit your annual payment before the end of 2017. If you haven't met the 40-hour requirement yet, now is the time to do so. For some of you, particularly this late in the year, this challenge may seem difficult. Yet, meeting CEP maintenance requirements is actually easily achievable if you consider the opportunities that are available. This article describes how you can maintain your certification by following some simple suggestions.

First Steps

First, the mechanics.

ABCEP's website, <http://www.abcep.org/>, has a tab at the top on the right, labeled "CEP-EXPRESS Login." Click on the tab, enter your email and password, and you will enter the CEP Express Portal. At the top of the page, click on "Manage Hours," and you will see instructions for how to create a table of your activities for 2017 (Hours Details table).

HOT TIP Click the drop-down menu under "Maintenance Renewal Year" to see your activities and hours in past years. Note that 40 hours is a **5-year average** requirement. **You can borrow excess hours from the past or future 4 years to meet the 40 hour per year requirement.** Thus, if you had, say 44 hours for 2013, and 40 hours for 2014, 2015, and 2016, you would only need 36 hours for 2017. However, in that case in the future, you will need to record at least 164 hours during the years 2018-2021 (for example, 3 years at 40 hours, and one year at 44) to maintain your required 40 hour average over each running 5-year period. This averaging process enables CEPs to maintain their status even during unusual circumstances such as sabbaticals, temporary unemployment, or taking time off for other purposes. Averaging also means you do not need to reapply as a CEP after missing the target for only a few years; you just have to record more activity in the following years!

Warning: CEPs who do not meet the 5-year average requirement will lose their certification and will have to repeat the entire application process should they desire their certification again in the future.

The Hours Limits table shown at the bottom of the CEP Express/Manage Hours web page (see below) lists the various categories of maintenance activities and the maximum number of hours that may be counted in each category toward the annual requirement. Note that the unit of measure for the ABCEP maintenance program is the "hour." The idea is that **maintenance hours are awarded based on your actual hours worked**, and not as a value arbitrarily assigned to different types of activity such as in a points system. ABCEP believes that the "hour" metric best reflects the effort you spend to maintain your involvement in the environmental practice. We set hourly ceilings for each category to ensure that CEPs engage in multiple activities each year, preferably involving both professional development and contributions to the profession. A general expectation is that a CEP will engage in at least one or two educational/professional development activities per year, such as attending a conference or taking a training course, and also at least one or two professional contribution activities each year, such as serving ABCEP or some other environmental professional or community organization.

Continued from page 4

The Hours Limits Table (see page 8) lists four types of activities that count toward maintaining your CEP: employment, serving ABCEP, education, and serving other professional organizations. Employment and education are considered “professional development” activities, while serving ABCEP and other organizations are considered “professional contribution” activities. ABCEP does not require any particular allocation among these types of activities, but CEPs are encouraged to be active in both kinds. Let’s first review the opportunities involving professional development.

Professional Development - Employment

Recognizing that professionals learn considerably through engagement in professional practice, ABCEP grants 20 of the required 40 hours for full-time employment, and prorated hours for part-time employment. Thus, you can meet up to half of your annual requirement just by working full time.

Since not all time spent at work can be considered professional development, ABCEP has made an exception to the “actual hours worked” rule noted above, and restricts the number of hours that can be credited to one percent of hours worked. Thus, for example, if you work 20 hours per week for 50 weeks, you can record $20 \times 50 \times .01 = 10$ hours on your Hours Details table. Note that you don’t necessarily have to be paid for these hours. If you are an employee or consultant for a non-profit environmental organization, you should count those hours, too.

ABCEP recognizes that the concept of “full-time employment” continues to change, with increasing numbers of environmental consultants practicing on a free-lance basis whenever work becomes available instead of reporting to a single employer every day. Thus, ABCEP does not distinguish between CEPs who are self-employed and those who work for others. It is the number of hours engaged in the profession that counts.

CEPs who do not work at all can also maintain their certification. Spending less than 1 hour every nine days during the year on other creditable activities should not be a hardship, particularly for someone who is not working full time. The entire 40 hour requirement can be met just by taking environmental education classes or by performing environmental organization support services, as summarized below.

Professional Development - Education

As we all know, the environmental practice is in constant flux. New local, state, and federal regulations are constantly being promulgated. New data is being gathered each year. New technologies are being implemented that require training and practice. New concerns – chemical, biological, and cultural – require experts to know more than ever about current issues and solutions. For these reasons, CEPs need to continuously engage in educational activities in order to maintain currency of knowledge in one’s chosen environmental field. Fortunately, opportunities to join webinars, conferences, and other educational programs abound.

Two types of educational activities are listed in ABCEP’s Hours Limits table: “attend accredited seminar/course,” and “attend conference.” An “accredited seminar/course” is intended to include all types of bonafide training and courses that provide the environmental professional with updated knowledge. For this reason, 100 percent of your attendance hours in this category count toward your annual tally. These courses may include employer-sponsored training classes, as well as web-based instruction, webinars, and self-study programs, which are increasingly replacing traditional instructor-based classroom courses. For example, for the past 6 years, American Public University (APU) in partnership with the National Association of Environmental Professionals (NAEP), has offered monthly webinars that focus on the environmental professional, some of which are free (see <http://www.naep.org/webinars>).

A variety of other providers now also make many courses available for free online under the heading of “massive open online course” (MOOC). A MOOC is an online course that provides students with unlimited access via the web to course materials such as filmed lectures, readings, and problem sets, and in many cases also provides forums for interactions among students, professors, and teaching assistants. **Several free environmental courses are listed at <https://www.mooc-list.com/>**, and others are available at other sites such as edX and Coursera.

Continued from page 5

For those of you who are interested in more extensive training, you might consider obtaining a certificate in an environmental specialty. As an example, APU offers graduate certificate programs in Environmental Hazard Mitigation and Restoration, Environmental Planning and Design, Environmental Risk Assessment, Environmental Sustainability, and Fish and Wildlife Management Global Environmental Management. Other schools offer similar on-line, open courseware (OCW) programs. See, for instance:

- ◆ Massachusetts Institute of Technology – <http://ocw.mit.edu/courses/sloan-school-of-management/>
- ◆ New Jersey Institute of Technology – <http://ocw.njit.edu/nce/>
- ◆ University of California – Irvine – <http://ocw.uci.edu/courses/>
- ◆ University of California – Berkeley – <http://webcast.berkeley.edu/>

Do not forget that environmental education includes more than just technical training. Attending a class in Ethics is required each year by the American Institute of Certified Planners, and by many other professional organizations. An Ethics class will be offered at the next NAEP conference in Tacoma on March 12, 2018. While such a course is not a requirement for CEPs, it is a good idea.

Regarding the second educational activity in the table, “Attend Conference,” ABCEP recognizes, in the second exception to the “credit for hours worked” maxim, that some of the time that participants spend at conferences is not focused on professional development (oh, really?). Also, the amount of information learned in a conference setting is likely not as great as can be gained in a training course. For these reasons, only 50% of time is counted for conference attendance, up to the maximum shown. Many professional conferences now offer proceedings online or on compact disks, reducing the need for costly travel.

Although activities such as teaching a course, leading a webinar, or speaking at professional conference, or in contributing to help organize a webinar or conference involve education and conferences, this time should not be entered under education. Instead, account for these activities under one of the “professional contribution” categories discussed below.

Professional Contribution - Serving ABCEP

Your contribution to the profession is an important part of being a CEP. As a professional, you are expected to contribute what you learn to the benefit of others and the profession as a whole. There are no obstacles to gaining hours in this category of activities. Opportunities to contribute to the profession are everywhere, including, and especially, within the ABCEP organization. ABCEP grants hours in numerous ways, from participation in the administration of its programs to mentoring potential new applicants. **You can meet 40% of your annual requirement (16 hours) just by serving ABCEP.** CEPs benefit from serving ABCEP through exposure to and engagement with professional issues outside of the context of routine practice. Examples of just a few of the many ABCEP services in which you can engage include:

- ➡ **Serve on the Board of Trustees.** The Board is composed of twelve at-large elected CEP's in good standing, plus the director of the Certification Review Board (see below). Members of the Board of Trustees are elected to a three-year term of office and meet in person twice each year at various locations around the country. Through a committee management structure, Trustees conduct strategic planning, establish policy and procedures, prepare and implement plans and play an active role in building the success of ABCEP and its CEP Membership. New Board members are elected at each annual meeting, the next being March 11, 2018 in Tacoma.
- ➡ **Serve as a member of the Certification Review Board.** The Certification Review Board evaluates applications for the CEP, and implements requirements set forth in the ABCEP Procedures Manual. This is a very rewarding experience, enabling you to become familiar with a wide variety of environmental professionals who wish to become CEPs. If you have not served on this board, you should give it a try.

Continued from page 6

- ➔ **Serve on an ABCEP committee.** ABCEP has six standing committees: Membership Services, Pre CEP, Certification Review Board Oversight, Marketing/Recognition, Communications, and the Executive Team. Each committee has more than enough work for you to reach the 16 hour maximum. By joining one of these committees, you can meet other accomplished professionals and apply your special talents to the tasks that need to be completed.
- ➔ **Contribute Article to ABCEP Newsletter.** The ABCEP newsletter (see <http://www.abcep.org/blogs/newsletter>) is published every month or two. Contributions are sought each month, often based on an environmental theme. This is an opportunity for you to let everyone else know what you are doing in the field. You may also benefit professionally as other CEPs gain broader exposure to your work.
- ➔ **Contribute Updates to ABCEP's Body of Knowledge** (see <http://www.abcep.org/certification/body-of-knowledge>). ABCEP's Body of Knowledge lists educational disciplines, organizations, websites, journals, articles, books, and other information that forms the basis for demonstrating that an environmental professional is accomplished in this field and deserves to be certified as a CEP. Any CEP may suggest additions or edits to this Body of Knowledge. All such effort counts toward your annual goal.
- ➔ **Staff ABCEP Booth at a Conference.** ABCEP encourages CEPs to promote the ABCEP program. If you attend a conference, ABCEP will supply the banner and handouts, and will pay costs you incur if you obtain approval in advance. By providing a list of potential applicants that you meet to the ABCEP office, you will help expand both our brand recognition and our membership. You can start by joining other CEPs in Tacoma in 2018 and get credit for the hours you staff the ABCEP table!
- ➔ **Contribute your project to the CEP-IN-ACTION PROGRAM** (see <http://www.abcep.org/blogs/cep-in-action>). Getting to know each other is part of the fun of being a CEP. You can let others know who you are and what you are doing by submitting a profile of a project that you are working on to be posted on the abcep.org site. You also can gain hours in the process. How easy is that?
- ➔ **Mentor a young professional.** ABCEP has had great success with the CEP-in-Training (CEP-IT) program. Those individuals who are new to the environmental field are invariably excited to have a more senior practitioner, a CEP, assigned as a mentor to help them. Mentors help CEP-ITs develop a formal Career Path and act as a career counselor when needed until the trainee achieves CEP status. Mentors are also assigned to help CEP applicants navigate through the application process. (The time you spend on mentoring staff in your own organization also counts, and should be added under "Serving Other Professional Organizations" - see below).

To engage in any of these activities, indicate your interest by sending an email to ABCEPs Executive Administrator at office@abcep.org who will get you connected. You will soon be plugged in!

Professional Contribution - Serving Other Professional Organizations

The same types of services listed above are in demand by other organizations, and equally count toward your annual goal. For example, the National Association of Environmental Professionals solicits input for its newsletter and its peer reviewed journal Environmental Practice (see <https://naep.memberclicks.net/publications-resources>). Most CEPs agree, it is vital to one's career to be a member of at least one professional organization. Organizations exist for every conceivable career niche. Examples include: the American Chemical Society, American College of Toxicology, Association of Hazardous Materials Managers, Institute of Noise Control Engineers, Society of Architectural Historians, Society of Risk Analysis, Society of Wetland Scientists, and the Water Environment Federation (many more organizations are listed at <http://www.abcep.org/certification/body-of-knowledge>). Many of these organizations also have local chapters with multiple opportunities for serving as officers, organizing local conferences, and leading other tasks. Check out opportunities near you.

As shown in the Hours Limits Table [see page 8], you can also claim credit for hours spent publishing in a journal, teaching a course or seminar, presenting a paper at a conference, or mentoring someone in another environmental professional organization. In fact, **you can meet or exceed the entire 40 hour goal just by serving other professional organizations.** CEPs who serve other organizations get a chance to meet and speak with other professionals, and to publish in a variety of venues. All these activities contribute to the advancement of this profession and deservedly count appreciably toward your maintenance goal.

Continued from page 7






Final Steps

All CEPs should be updating activities on the ABCEP CEP Express website on a periodic basis during the year. Hopefully, if you have had any concern that you might have problems in obtaining the necessary hours you have already reached out to the ABCEP office or to a Board Member for assistance. The office and Board will help any ABCEP member find ways to meet the annual goal by offering ideas and potential assignments to task groups, committees, sub-committees, and other activities. Please view the ABCEP website to see what is going on, connect a Board Member if appropriate, and help yourself to the opportunities that are available. Of course, your maintenance renewal process is not complete until you also submit your payment (see the “Payment” tab at the top of the CEP Express Portal).

Payment must be received by January 31, 2018 if you want to avoid a late payment fee. You cannot use the title of “CEP” if you have not submitted your maintenance hours and payment each year.

So, **REMEMBER TO RENEW YOUR MEMBERSHIP!**

Summary Checklist. Before the end of this calendar year you need to:

-  Go to the Hours Details table, and add hours for your regular daytime work
-  Add hours for all your relevant extracurricular activities
-  If you check and still find you are falling short, engage in one or more of the example activities discussed above, or contact the ABCEP office for assistance.
-  After you enter your maintenance hours on the Hours Details table for 2017, certify that you have supporting documentation such as completion certificates by adding your initials under the “Certification” column. Your reported data are subject to random audit, so keep records that can verify your participation in the activities you list, in case you are asked.
-  Click on “Save Changes” on the top right side of the Hours Details table. You are now DONE!

The process described above shows that maintaining your CEP certification is not a difficult task, and is certainly a self-rewarding process, if you follow some basic steps. By recording more than 40 hours each year, you will provide yourself a buffer in case you encounter a year in which meeting this goal is more difficult. By engaging in one or more of the many professional development educational opportunities that are available, you will maintain your knowledge in this ever-changing field and will grow as a professional. And finally, by reaching out to the community and contributing your knowledge, you will both enjoy the experience and will make the world a better place. As a final step, if you still find yourself coming up short of the 40-hour goal, you can contact the ABCEP office (<http://dev.abcep.org/index.php/contact>), myself, or any ABCEP Board Member for suggestions. (If you do so, be ready, because you are likely to be put to work immediately!) All of the activities in which you engage help both you and this world we live in. So, don't procrastinate.

Log on to CEP-EXPRESS today and take credit for all your hard work!

Author - Richard Burke, CEP; Member of the Board of Trustees of the Academy of Board Certified Environmental Professionals. Richard has achieved more than 35 years of experience managing transportation-related environmental planning, permitting, and compliance practices, and in serving major clients in the capacity of technical, project, and program management. Richard may be contacted at rburke@trcsolutions.com.

Continued from page 8

Hours Limit Table

Activity	Hours Formula	Max Hours
Employment - Full Time	--	20
Employment - Part Time	1% of hours worked	20
Support ABCEP - Trustee	Hours worked	16
Support ABCEP - Cert Review Board	Hours worked	16
Support ABCEP - Mentor	Hours worked	16
Support ABCEP - Other	Hours worked	16
Education - Attend Accredited Seminar/Course	100% of hours attended	18
Education - Attend Conference	50% of hours attended	12
Serve Pro-Organizations - Serve an Organization	Hours worked	16
Serve Pro-Organizations - Publish in a Journal	Hours worked	12
Serve Pro-Organizations - Teach Course/Seminar	Hours worked	6
Serve Pro-Organizations - Present Paper at Conference	Hours worked	6
Serve Pro-Organizations - Mentor	50% of hours worked	4
Certified this year	--	0

**KEEP STRONG
AND
MAINTAIN ON**



**Log on to
CEP-EXPRESS
today and
take credit
for all your
hard work!**

Facing the “Wicked Problem” of an Inland River: Managing the Skagit River in Washington State

Alan Ewert, PhD, CEP

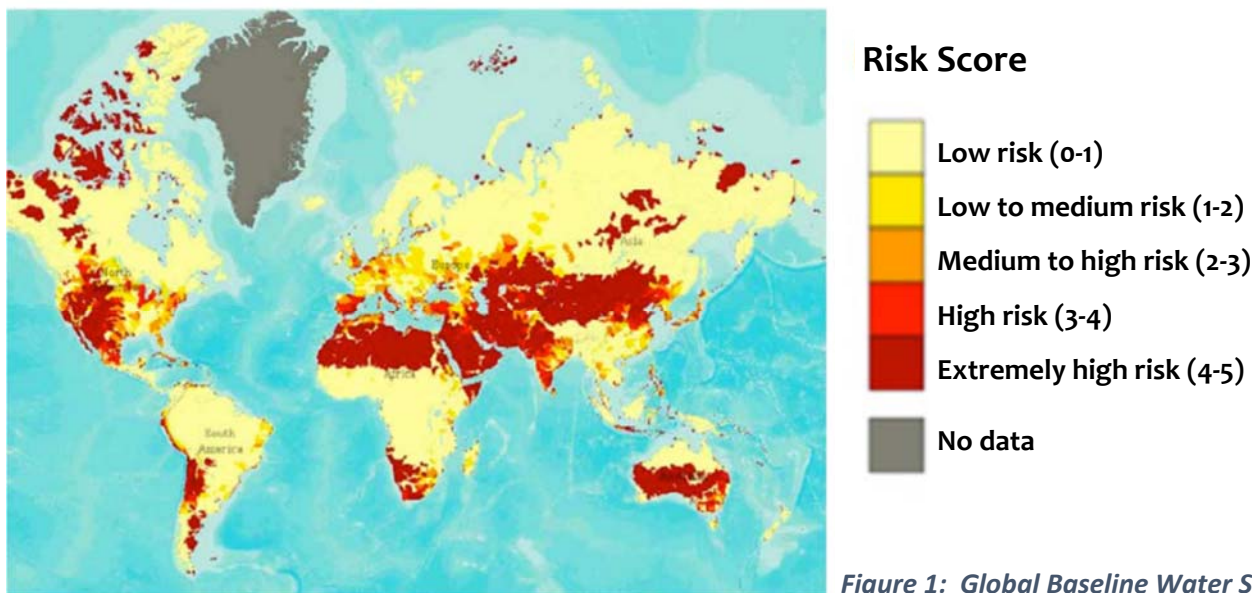
Alanna Ewert, MA

One of the most vexing issues facing environmental professionals is the management of finite and highly coveted natural resources. This dichotomy between the availability and the value placed on a specific resource often leads to “wicked problems.” Conklin (2006) defines wicked problems as those questions that defy scientific and often rational decision-making, and involve **issues that cannot be answered through simple logical procedures**. Moreover, they generally require abstract reasoning to be applied through multiple frames of reference. Inland river water represents one of these types of wicked problems because of a number of factors including, (a) its often limited availability, (b) it is widely subscribed to for a broad variety of uses, (c) is mandatory for human life in, both specific amounts and quality, and (d) as a result of these factors, water is highly valued to the extent that failure to cooperatively manage it, either locally or internationally, can result in conflict and potential warfare. Beyond the obvious need for water that is suitable for human survival, water is also connected to a host of human health issues such as food availability and access, sanitation, transportation, and disease mobility (Levy & Patz, 2015) (refer to **Figure 1**).

Not surprisingly, the presence of multiple stakeholders involved in water resources further complicates any management situation. Successful management of many of these water resources will depend on the interaction and decision-making of often a broad range of governmental, private, industry, and country entities. One example of this multi-tiered complexity and the efforts with which to deal with the reality of multiple stakeholders is represented by the Skagit River in Washington State.

Brief Description of the Skagit River and Skagit River Valley

The Skagit River, with its source north of the United States border in British Columbia, Canada, and its terminus near Mount Vernon, Washington, USA (Buroker, n.d.a), is the longest and one of the most biologically diverse river systems in the Puget Sound basin. The river spans approximately 160 miles and includes over 38,000 acres of water, as well as multiple species of salmon and salmonoid including, the Pink - *Oncorhynchus gorbuscha*; Sockeye - *Oncorhynchus nerka*; Coho - *Oncorhynchus kisutch*; Chum - *Oncorhynchus keta*; Steelhead - *Oncorhynchus mykiss*; Bull Trout - *Salvelinus confluentus*; Chinook - *Oncorhynchus tshawytscha*. Salmon fishing also serves as an important part of both the local and state economy and is part of the approximate \$3.9 billion



: World Resources Institute- Aqueduct Project

Figure 1: Global Baseline Water Stress

Continued from page 10

commercial fishing industry in the Washington State (Radtke, 2011).



Figure 2: Salmon on the Skagit,
photo courtesy of Alanna Ewert

Different Stakeholders and Water Users

The Skagit River watershed case is a classic example of a wicked problem involving a common pool resource (CPR). A CPR is defined as a commons (in this case a commons provided by the natural world), such as a body of water, river, or parkland that is a shared resource available to the public or local community, and is considered non-excludable. Non-excludable implies that people cannot be excluded or prevented from using the resource unless a costly process such as privatization occurs (Hess, 2006). In addition, a CPR is considered to be “subtractable”, meaning users can deplete the resource eventually rendering it exhausted and a typical problem with CPRs occurs when users of the resource continue to subtract from it until eventually there is not enough of the resource left for all the users. In order for a commons to regenerate, those using it need to add resources to contribute to the commons’ sustainability or restrict its usage (Anderies & Janssen, 2013).

What makes the Skagit River a CPR is the fact that there is not enough water for everyone wishing to use the resource. Obviously compounding the problem in the Skagit River watershed is that the available water cannot readily be used for two purposes at the same time. For example, if groundwater is being consumed for home use, this use can disrupt the hydraulic continuity of the Skagit River and negatively impact the use of surface waters that impact other aspects of the ecosystem, such as

salmon habitat. Hydraulic continuity refers to the connection of the groundwater and surface waters. If a user wants to build and dig a well, it detracts from the river, even though the water is pumped from the ground (Osborn, 2010). Disruption of continuity is at the heart of many, if not most, of the issues related to water use and has resulted in a complicating of governance for land at the local level and water at the state level.

More specifically, a “scarcity” of water occurs and results in conflict between those wishing to build in the watershed, those wishing to fish in the resource, those wishing to recreate on the resource, and those wishing to “conserve” and keep the river in a relatively pristine state. Further complicating this picture is the use of irrigation which already accounts for over 10 cfs (cubic feet per second) during the irrigation season extending from April through October. If the water levels become too low, not only do the salmon not survive, but also those who have wells for their homes cannot have an adequate supply of water.

In a way, the Skagit River instream flow rule (a rule that restricts well digging along the Skagit River and makes landowners acquire special permits in order to dig wells) changed this resource from a CPR to a private good, because it prevents some people, in this case developers and landowners, from using the river by excluding those people from using the resource.



Figure 3: Rafters on the Skagit,
photo courtesy of Alanna Ewert

Continued from page 11

Management of the Skagit River Water Issue

With the growing issues associated with water use on the Skagit River, it was recognized that there were multiple users with a variety of demands being placed on Skagit River water. Beginning in 1996, there emerged a process to try to accommodate both these users (actual and potential) and their associated water needs and uses. As depicted in Figure 4, this process involved a number of events that highlighted the difficulty in trying to find a balance between the water resources and the variety of actual and potential users associated with the Skagit River. A number of resolution efforts emerged in an attempt to deal with the many complexities of the water issue on the Skagit. One in particular included the Streamflow Enhancement/Groundwater Mitigation Program, with the Interagency Review Team (IRT) meetings of this program involving many people from various organizations and most importantly, residents and landowners from the Skagit River watershed. The program became defunct due to landowners not wishing to sell their property, as well as a lack of overall community support for the project (Buroker, n.d.b) (refer to **Figure 4**).

Polycentric Resource Management

Because of multidimensional problems often associated with CPR issues such as water management, “polycentric management” has become a popular approach to developing productive governance strategies for CPR-related conflicts and possible solutions. “‘Polycentric’ connotes many centers of decision making that are formally independent of each other” (Ostrom, Tiebout, & Warren 1961, p. 831). From an application perspective, watershed governance has become a complex topic because water policy has developed and changed considerably over time, especially in the Skagit River watershed, making water governance there fluctuating and dynamic. Thus, polycentricity is noted for its beneficial compatibility for all the actors involved; as opposed to a monocentric system where fewer actors make all of the decisions that affect the entire arena (Marshall, Coleman, Sindel, Reeve, & Berney, 2016).

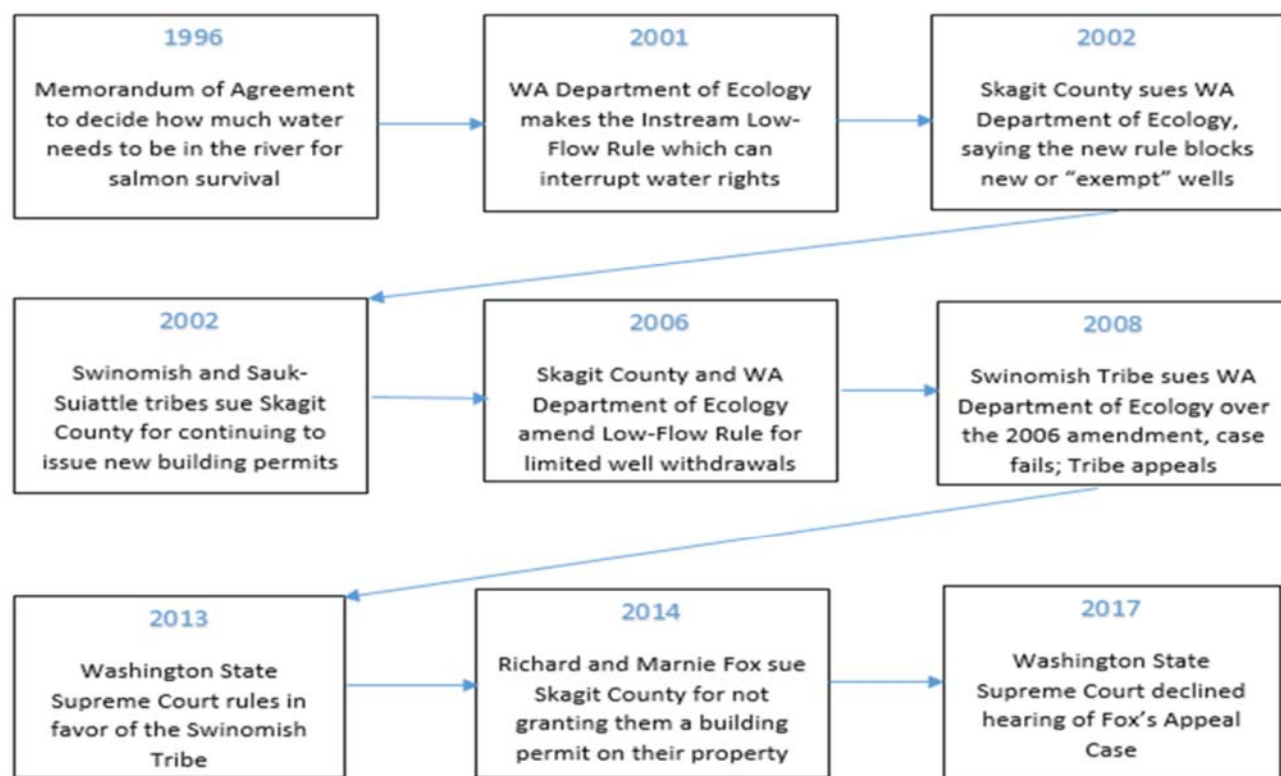


Figure 4: Example of Resolution and Mitigation Efforts on the Skagit River Basin [source: Buroker, T. (n.d.b)]

Continued from page 12

Does Polycentricity Work on the Skagit River?

The Skagit River is one of a number of other watersheds that have been recognized as polycentric systems. However, polycentric systems may not always be functional with Da Silveira and Richards (2013) demonstrating that even though some systems may be polycentric, they may not always be successful in terms of governance. In the case of the Skagit, because of the instream flow rule, no new wells are allowed to be drilled within the watershed area, even if one lives on private property. This rule, in turn devalues private property if a well cannot be drilled, with over 700 parcels of land in Skagit County being devalued by \$20 million, and the county's economy having suffered a loss of \$157 million ("Water-Rights Ruling," 2017).

Clearly, despite the use of polycentric and other shared-government approaches, managing a natural resource as complex as a river basin remains both an incomplete and contentious process. Environmental professions from a broad variety of management levels and professional expertise continue to be challenged as they try to resolve these "wicked problems." Perhaps in the long run, many of these problems will remain amenable to only partial solutions and prone to the political forces of the day.

Authors - Alan Ewert, PhD., is a Professor at Indiana University and has done research in the human dimensions of natural resource management.

Alanna Ewert received her Master of Arts degree from Western Washington University in Bellingham, WA. Her thesis research was focused on Polycentric Governance in the Skagit River Watershed.

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- Water-rights ruling leaves rural Washington high and dry. (2017, April 26). Editorial. *The Seattle Times*.

Please join the ABCEP Board of Trustees in welcoming our newest member!



Anna is a Certified Environmental Professional (CEP) and leads HDR's Resources Business Group in Alaska. An active member of the National Association of Environmental Professionals (NAEP) and board member of the Alaska Chapter of NAEP, Anna has 13 years of experience managing private- and public sector environmental and National Environmental Policy Act (NEPA) projects. Anna conducts quality control reviews of environmental documents and permit applications for a team of scientists, including wetland biologists, environmental planners, cultural resource specialists, and wildlife biologists.

Anna has efficiently coordinated and reviewed technical reports and draft documents related to wetlands, hydrology, fish passage, wildlife movement, traffic projections, noise analyses, recreational and visual resources, contaminated sites, cultural resources, water quality, cumulative impact analyses, and project alternative evaluations.

She is actively engaged in all technical discipline aspects pertinent to the NEPA process, as well as with agency and stakeholder coordination and communication. Anna has experience with field work and composition of wetland delineations and functional assessments, environmental site assessments, site monitoring, baseline environmental studies, review and incorporation of technical studies into environmental documents, subconsultant oversight, and agency coordination.

Anna has worked on NEPA projects with the U.S. Army Corps of Engineers, Federal Highway Administration, Federal Aviation Administration, Surface Transportation Board, U.S. Air Force, Federal Energy Regulatory Commission, U.S. Fish and Wildlife Service, Bureau of Ocean and Energy Management, and Department of Energy as lead Federal agency.

Anna holds a certificate in NEPA from the Duke University Nicholas School of the Environment and a BA in Geology from Mount Holyoke College.

Anna may be contacted at Anna.Kohl@hdrinc.com

The Environmental Professional - Newsletter Topics 2018

For 2018, ABCEP will publish *The Environmental Professional* on a bi-monthly basis.

We encourage our membership to provide articles related to the topics noted, but an article on any subject can be submitted at any time.

By focusing each newsletter on a specific topic, we hope to provide a more robust reading experience for our membership.

I look forward to an interesting and informative 2018!

Shari Cannon-Mackey, Editor

Article submittal guidelines:

- ◆ Submit articles by the due date indicated, to scannonmackey@burnsmcd.com
- ◆ Submit article in Word format
- ◆ Submit graphics/exhibits as jpg/tif files
- ◆ All graphics/charts/exhibits need to be referenced and the author is responsible for obtaining all releases from owners/publishers in order for the image to be used in the newsletter
- ◆ Provide brief biography of the author(s)
- ◆ PDF of the finished article (with all graphics/exhibits placed) will be helpful.

JANUARY-FEBRUARY

CEPs in Industry
(due January 26, 2018)

MARCH-APRIL

National Environmental Policy Act
(NEPA) Compliance and Streamlining
(due March 23, 2018)

MAY-JUNE

Historic Preservation and Section 106
Compliance
(due May 25, 2018)

JULY-AUGUST

Water Quality - Regulatory Changes
and Future Outlook
(due July 27, 2018)

SEPTEMBER-OCTOBER

CEPs in Transportation
(due September 28, 2018)

NOVEMBER-DECEMBER

CEPs in the Construction Sector
(due November 23, 2018)

NOW ACCEPTING NOMINATIONS FOR 2018

Nominate an Emerging Environmental Professional



Know an Environmental Professional who has made a valuable contribution to the profession?

Someone who should be recognized for their leadership, professional involvement and commitment to the environmental profession?



Nominate them today for this prestigious award!

Email office@abcep.org
or visit

www.abcep.org/blogs/awards

Candidates must:

- Not be older than 35 years old.
- Possess a bachelor's degree from an accredited university in an applicable field.
- Be a full-time environmental professional.
- Have a minimum of 5-years professional experience in a position of responsible charge.



NOW ACCEPTING NOMINATIONS FOR 2018

NOMINATE AN ENVIRONMENTAL PROFESSIONAL



Dr. Richard J. Kramer, CEP Memorial Award for Environmental Excellence



NATIONALLY RECOGNIZE EXTRAORDINARY ACHIEVEMENTS, LEADERSHIP, AND SPIRIT OF A CERTIFIED ENVIRONMENTAL PROFESSIONAL

Dr. Kramer's involvement in ABCEP spanned more than two decades. In 1982, he was the 31st person to earn the CEP designation. He served on the Academy's Certification Review Board from 1985 to 1999, when he resigned to become the first President of the Academy. Dick began his career in the environmental profession in 1972. For many years he was head of the environmental planning and NEPA office for the Camp Pendleton Marine Corps Base in California.

The ABCEP Trustees are responsible for selecting the winner of the award. More than one award may be given each year. The award was presented for the first time in 2004, to commemorate the 25th Anniversary of the creation of the Certified Environmental Professional designation by the National Association of Environmental Professionals (NAEP) and the 5th Anniversary of the creation of the ABCEP, which was created in 1999 to oversee the CEP program.

**All ABCEP Members are eligible for the Award
& must be nominated by an active ABCEP Member.**

Nomination Deadline: February of each year

SEND NOMINATIONS TO OFFICE@ABCEP.ORG OR VISIT WWW.ABCEP.ORG/BLOGS/AWARDS



CEPs working in manufacturing, logistics, mining, petrochemicals, and construction address environmental challenges on a daily basis. Many are responsible for the health, safety, and operational capacity of their workforce, clients, and customers.

The January-February 2018 edition of *The Certified Environmental Professional* will focus on **CEPs in INDUSTRY**.

We welcome a variety of perspectives on the topic from the environmental practice community.

Deadline for submittal January 26, 2018 to

scannonmackey@burnsmcd.com

Articles should be submitted in Word, with all graphics/photos provided in either tif or jpg formats. Do not send PDFs. All exhibits/figures/photos must have sources documented and all permissions to use obtained by the author of the article prior to publication.

For questions, please contact Shari Cannon-Mackey, CEP, ENV, SP, Editor at 512-872-7132 or by email to scannonmackey@burnsmcd.com



The Certified Environmental Professional

The ABCEP Newsletter is published bi-monthly and is intended to be a:

- ◆ Communication vehicle for the Board of Trustees and ABCEP Committees to inform and engage with CEPs and CEP-ITs on current activities within ABCEP and its future direction.
- ◆ Forum to report on current and emerging environmental issues, regulation and policy changes, and professional trends.
- ◆ Forum to provide professional guidance and advice to expand the professional growth and knowledge of members.
- ◆ Means for members to communicate with one another on current accomplishments, interesting projects, or lessons learned on the job with new approaches and successful problem solving solutions.
- ◆ Platform to acknowledge, highlight, and welcome active CEPs and CEP-ITs.

All members are encouraged to be active in their profession and affiliated professional organization.

If you have an article or a topic of interest that you would like presented in *The Certified Environmental Professional* newsletter please submit your completed article or topic request to Shari Cannon-Mackey, CEP ENV SP, at scannonmackey@burnsmcd.com; or to Andrea Bower at office@abcep.org.

Thank you,

Shari Cannon-Mackey, CEP, ENV SP
Editor

What are CEPs and CEP-ITs doing in your area?
Let us know - no event is too small nor too big!
Send your photos and descriptions to
Shari Cannon-Mackey at scannonmackey@burnsmcd.com