**TOPIC: Certification of Sediment Laboratory Chiefs and Reviewer**

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**CONTRIBUTORS: See “Sediment Laboratory Reviews” write up by Miya and Aimee**

The process for training and “certifying” leaders for sediment laboratories from the former WRD; and the related “certification” of triennial sediment-lab reviewers, has evolved over time. This overview provides background information to assess how this process has evolved and to ascertain if it is adequate or needs to be revised. I suggest we reconsider this historical guidance in light of the well-established triennial lab review process (for former WRD sediment labs) and the success of the National Sediment Lab QA program.

**SYNOPSIS OF HISTORICAL MEMORANDA AND SUMMARIES**

Parts of three OSW Technical memoranda and the 1998 sediment lab chief’s meeting web-based summary address the aforementioned issues, as summarized in chronological order below (only synopses germane to the 2011 sediment lab meeting attendees are included under each title):

**I. OSW Tech. Memo 91.11, TRAINING--Certification Training for Sediment**

 **Laboratories;**

**The Office of Surface Water is implementing several quality-assurance requirements for sediment data-related activities within WRD…It is our intention to quality assure these laboratories by immediately implementing the following:**

 **1) training in laboratory operational procedures,**

 **2) review of the lab facilities and operations,**

 **3) adoption of lab QA plans, and**

 **4) successful participation in a standard reference-sample program.**

**Our goal is to achieve certification during 1992 of all sediment laboratories that intend to continue operations in 1993. Completion of the certification requirements will be required for a sediment laboratory to process samples for publication of 1993**

**water-year data.**

I understand the training referred to in 1) above took place in Iowa City, Iowa, in 1992.

How this relates to present “certification” procedures:

1. We have no formal, as-needed or periodic sediment lab training, other than what might take place as part of triennial surface-water reviews.
2. Lab facilities and operations are reviewed on a 3-year cycle.
3. All labs have QA plans – correct?
4. The National SedLab QA Program has operated since 1996.

**II. OSW Tech Memo NO. 98.05: A National Quality Assurance Program for Sediment Laboratories Operated or Used by the Water Resources Division**

**In accordance with OSW Technical Memorandum No. 91.11, "Certification Training for Sediment Laboratories," each WRD District or contract sediment laboratory chief (the individual from the District or contract laboratory responsible for the quality of laboratory results) must complete WRD certification requirements. The policy specifies that in order for a laboratory chief to meet the first step of certification, the chief should attend WRD sediment laboratory operation training. This includes an initial 1-week training period under a certified sediment lab chief, and attendance at periodic meetings of sediment laboratory chiefs. Upon successful completion of this training, these employees become certified sediment laboratory chiefs and are authorized to provide certification training in their home laboratory to others.**

**Sediment laboratory reviewers certified by the OSW will lead the on-site evaluations of the WRD and contract sediment laboratories. A standardized approach that evaluates and documents laboratory performance in a consistent, readily comparable manner will be employed.**

How this relates to present “certification” procedures:

1. I don’t believe any of the current sediment-lab chiefs, other than perhaps Dan Gooding, have attended any such training. Is this an unreasonable and/or unnecessary requirement?
2. Our “periodic meetings” take place on about a 7-year cycle. I suppose that enables us to “check a box” but does it address the spirit of the recommendation? Do we need these meetings more often?
3. I believe this is the first memo linking “certified lab chiefs” to “certified sediment-lab reviewers.” If anyone should know, it would be me, as I wrote this memo…
4. We have a standard review template that guides triennial sediment-lab reviews. Do we concur that his (a) meets the spirit of the “law,” and (b) is adequate for present-day purposes?

**III. OSW Tech Memo NO. 99.04: Guidelines from the 1998 Sediment Laboratory Chiefs Workshop**

**An effort is being made to increase the pool of certified sediment laboratory reviewers. To this end, the OSW supported three certified sediment laboratory reviewers-in-training since July 1998, and intends to continue this support based on the availability of funds.**

How this relates to present “certification” procedures: We have provided ‘understudy’ training on a sporadic basic over the last dozen years.

**IV: Summary from the 1998 Sediment Lab Chief’s meeting:**

**Certification Training (principal contacts - Schroder, Gray): The two forms of certification training discussed in the meeting are based on:**

1. **A requirement for sediment laboratory chiefs to attend a "training period under a certified sediment laboratory chief, and ... periodic meetings of sediment laboratory chiefs" (OSW Technical Memorandum 98.05).**
2. **The OSW's need to train and maintain a cadre of certified sediment laboratory reviewers.**

**Fortunately, training needs for these purposes are complementary and can often be achieved simultaneously through mentoring by a certified laboratory reviewer on a triennial sediment laboratory review.**

**As of March 1998, the following individuals are considered certified laboratory reviewers: John George, Vernon Norman, LeRoy Schroder, Russ Ludlow, Dan Gooding, Al Onions, and Clyde Sholar. There is a disparity in availability and time since direct involvement in day-to-day sediment laboratory activities associated with those listed. For example, Dan Gooding is the only current laboratory chief in the group. On the other extreme, Vernon Norman has not been involved with sediment laboratories for years, is retired, and has given no indication of interest in his future involvement in this capacity. A larger cadre of certified sediment laboratory reviewers with recent laboratory experience needs to be trained, and soon.**

**Recommendation: Annually send 1-3 laboratory chiefs not certified as sediment laboratory reviewers on sediment lab reviews until all in need of this training have participated. We may opt to provide certification on a method-by-method basis (Gray).**

How this relates to present “certification” procedures:

1. The only current certified sediment lab reviewer from that list is Dan Gooding. Other certified sediment-lab reviewers (from memory…I hope this is correct) are: Kent Dodge, Jessica Stiles, Cheryl Joseph, Miya Barr, Julie Nason, and Aimee Downs. Although I am aware of other experienced lab personnel – for example, Marlon Johnson, LA; and Arlene Sondergaard and Kate Norton, CVO – who we might want to ‘grow.’
2. CA WSC Sediment Lab Chief Allan Mlodnosky retired…former student is slated to take over…how does this fit into various policy and needs?
3. Interestingly, some past certified sediment-lab reviewers do not appear on either list, including Libby Shreve, Pam Smith, and Allan Mlodnosky.
4. We have not provided any method-by-method training, have we?
5. Has the success of the National Sediment Lab QA program, and our well-established triennial review process, subsumed other requirements?
6. How about requirements for non-ex-WRD labs? BRD/Flagstaff; GD Menlo Park and Woods Hole; Heidelburg College, OH; Ithaca, NY; etc?