

# CHAPTER 11

## TRAINING THE STAFF

County road maintenance crews and managers need initial special training when first hired, and they also need to regularly update their skills. Learning new and better methods in protecting water quality and stream habitat while maintaining roads should be a required part of any County training program. This section describes the training program elements, a suggested training schedule, potential certifications, and training resources (videos, newsletters, magazines, manuals, websites, workshops). As a reward for exceptional service, an annual award is proposed to publicly acknowledge those employees (an individual or crew) who have contributed significantly to helping protect clean water and fish-friendly streams while keeping the roads open and safe to the traveling public.



The goal for this chapter is to ensure sufficient training of county road employees in order to:

- Prevent or minimize delivery of sediment and chemicals to streams
- Prevent or minimize the interruption of normal
- Protect aquatic and riparian habitat
- Restore access for fish movement at stream crossings

### **11-A Training Program**

### **11-B Training Resources**

### **11-C Annual Award**

# 11-A TRAINING PROGRAM

**Description:** A training program helps County road maintenance personnel be responsible for understanding and correctly implementing the Best Management Practices (BMPs) for the maintenance activities described in this guide. It is one of the most critical elements of the regional and county road maintenance program.

## Program Elements

The County, in conjunction with other counties and Caltrans, will provide an outreach and training program for its maintenance personnel on environmental issues. Training will include both classroom and hands-on field application sessions. Some of the training can be handled within the county and held at local sites, other types may be held elsewhere within the region to share expertise and technical advice, while specialized educational sessions may be located outside of the region. Certain elements of the Training Program are already officially on-going in the region, as noted by the asterisk (\*) below. To be cost-effective, existing training materials and courses will be used if possible. When needed, supplemental funding will be sought to prepare additional training tools.

Training Program Elements for road crews, supervisors, engineers, and managers include:

### A. Internal Employee Training

- ☐ New employee orientation
- ☐ Monthly /Quarterly Manager Team & Safety Meetings
- ☐ Hazardous materials training \*
- ☐ Training video sessions (See: 11-B Training Resources)
- ☐ Field-based training

### B. Regional Training

- ☐ Manual Implementation Training Workshops / Modules:
  - ☐ Watershed & Fish Basics: Chapter 1
  - ☐ Legal & Permit Basics: ESA and Clean Water Act: Chapter 2
  - ☐ BMP training: Chapters 3 through 9, such as:
    - ☐ Fish Passage at Road Crossings \*
    - ☐ Water Drafting BMPs
    - ☐ Maintenance Yard Practices
    - ☐ Vegetation Management
    - ☐ Bridge Maintenance Practices
  - ☐ Monitoring Basics: Chapter 10
- ☐ Annual “Roads, Salmon and Water Quality Workshop for Northwestern Five Counties” \*
- ☐ “Training the Trainer” workshops (so more training can be handled locally)

### C. Regional Coordination Meetings & Forums

- ☐ Resource agency coordination meetings
- ☐ Five County Regional Manager quarterly meetings \*

### D. External Training by Others

- ☐ Participation in professional symposiums / conferences
- ☐ Participation in Continuing Education short courses or workshops
- ☐ Other appropriate courses and materials as later identified

# 11-A TRAINING PROGRAM

- ❑ Relevant certification programs (see below)

County Road Department managers will ensure this Training Program occurs by following these policies:

1. Provide a sufficient budget for road maintenance training, seeking supplemental funding sources if needed.
2. Maintain employee training records and give credit for training efforts.
3. Designate a Training Coordinator (may be same person as Safety Coordinator) for the Maintenance staff.
4. Promote the protection of water quality and salmon habitat as a legitimate and important function of each employee's job. (SEE: 11-C Annual Award)
5. Work with the Five County Regional Training Committee in developing a training curriculum to assist road maintenance employees in the consistent and effective implementation of this Manual.
6. Document participation in each training event and summarize in an annual report to the Five County Regional Training Committee.
7. Measure the change in awareness of topics through certain indicators, such as a before and after training session questionnaires.

## **Schedule**

### Annual Sessions:

- “Roads, Salmon, and Water Quality Workshop for Northwestern Five Counties” : Policy and Technical Workshop Sessions \*

### Quarterly Sessions:

- Regional Five County Road Maintenance Manager policy meetings to discuss ESA and CWA-related policy issues, such as: \*
- Update on listed species & policies
- Manual Implementation & Updates by Training Committee:
  - Identify and document thresholds for making changes in maintenance actions
  - Updated and/or new BMPs along with equipment that becomes available
  - Product use and evaluation
  - Recognizing when permits are needed
  - Develop process on filling out requests for permits
  - Develop planning for BMPs
  - Development of performance measures to evaluate progress

### Monthly Sessions:

# 11-A TRAINING PROGRAM

- Road Crew Safety Meetings to include discussion of ESA and CWA-related operational issues by Maintenance Supervisors and other maintenance personnel so ESA and CWA issues can continue to be incorporated into the daily delivery of the maintenance program.
- Note: OSHA and Hazmat procedures already require monthly staff meetings on their topics, so CWA & ESA topics can be added to these sessions

## Possible Certifications:

- **Certified Professional in Erosion and Sediment Control (CPESC):** The International Erosion Control Association (IECA) and the Soil & Water Conservation Society co-sponsor this certification program. It is designed to provide certification for those with adequate erosion and sediment control qualifications and experience. For information, call (800) 455-4322 or see website: [www.erosioncontrol.net](http://www.erosioncontrol.net)
- **Watershed Training Certificate:** The U.S. Environmental Protection Agency (EPA) offers an on-line program. A certificate is granted following the successful completion of a series of 15 specific on-line watershed training modules (10 required, 5 elective). [www.epa.gov/owow/watershed/wacademy/acad2000.html](http://www.epa.gov/owow/watershed/wacademy/acad2000.html)
- **“Road Scholar” Certificate:** A proposed new certification program based on the annual Five Counties’ “Roads, Salmon and Water Quality Workshop” on county road maintenance practices.

# 11-B TRAINING RESOURCES

**Description:** Examples of various training tools are provided. Self-help materials include videos, manuals, journals and newsletters, and websites. Training workshops, short courses, and conferences offered by others are also included.

## **Videos** [Note: Trinity County Planning Dept. has a copy of each of these.]

Bouquet River Association. 2000. "Looking for Answers: Developing Partnerships for the Control of Sediment Runoff from Rural Roads". (24 min.) Elizabethtown, NY. [ (518) 873-3688 ]. \$15.00.

California Assoc. of Resource Conservation Districts. 1997. "We All Live in the Watershed". (5:18 min.) Sacramento CA. [(916) 447-7237]. \$5.00

Oregon Dept. of Transportation. 1998?. "The Road to Recovery: Transportation-Related Activities and Impacts on Salmon". Photo & Video Services, Salem OR. [(503)986-3702]. \$11.00.

Oregon Dept. of Transportation. 1999?. "Calcium Magnesium Acetate: A Valuable Tool for Winter Operations". Photo & Video Services, Salem OR. [(503)986-3702]. \$11.00.

Oregon Sea Grant. 1999. "Life Cycle of the Salmon". (5:30 min.) Oregon State Univ., Corvallis, OR. [(541)737-2716]. \$11.00.

Oregon State University Extension Service. 1999. "Life on the Edge: Improving Riparian Function". (12 min.). VTP 033. Corvallis, OR. [(541)737-2513]. \$19.95.

Siskiyou Resource Conservation District. 1995. "The French Creek Watershed Story". (17:00 min.). Etna CA. [ (530)467-3975]. \$20.00.

USDA Forest Service. 2002. "Road Maintenance Practices." Water/Road Interaction Technology Series. San Dimas Technology and Development Center. San Dimas, CA. 5 video set. [(909) 599-1267] Free!

## **Journals, Magazines, Newsletters**

Critter Crossings. Federal Highway Administration. Periodic on-line newsletter "linking habitats and reducing roadkill". E-mail: [environment.fhwa@fhwa.dot.gov](mailto:environment.fhwa@fhwa.dot.gov)  
Website: [www.fhwa.dot.gov/environment/wildlifecrossings](http://www.fhwa.dot.gov/environment/wildlifecrossings)

Erosion Control . International Erosion Control Association. Bi-monthly trade magazine. P.O. Box 774904, Steamboat Springs, CO 80477-4904. [(970)879-3010; e-mail: [ecinfo@ieca.org](mailto:ecinfo@ieca.org) Website: [www.erosioncontrol.net](http://www.erosioncontrol.net)] \$36.00 per year.

# 11-B TRAINING RESOURCES

Land and Water. Land and Water, Inc.. Bi-monthly trade magazine. [(515)576-3191; [landandwater@dodgenet.com](mailto:landandwater@dodgenet.com); Website: [www.landandwater.com](http://www.landandwater.com)] \$20.00 /year.

Maintenance Storm Water Pollution Prevention Bulletin. Caltrans Storm Water Program. Monthly on-line newsletter. [For info: (916) 653-2975. ] Website: [www.dot.ca.gov/hq/env/stormwater/index.htm](http://www.dot.ca.gov/hq/env/stormwater/index.htm)

Watershed Management Council's Networker. Technical newsletter (2-4x/year) on various watershed management topics. [Voice mail (510)273-9066 or [www.watershed.org/wmc](http://www.watershed.org/wmc) ] \$20.00 per year.

Watershed Protection Techniques. A periodic bulletin on urban watershed restoration and protection tools. Center for Watershed Protection. [(410)461-8323; e-mail: [center@cwpl.org](mailto:center@cwpl.org) ] \$48.00 per 4 issues.

## Manuals

Association of Bay Area Governments (ABAG). 1995. Manual of Standards for Erosion & Sediment Control Measures. 2<sup>nd</sup> Edition. Oakland, CA. 422 p. [(510)464-7900; \$54.13 with S/H & tax]

------. 1986. Erosion and Sediment Control Handbook. Oakland, CA. 454 p. [(510)464-7900; \$85 with S/H]

California Dept. of Fish and Game (DFG). 2002. California Salmonid Stream Habitat Restoration Manual. 4<sup>th</sup> edition. Sacramento CA. [(916) 327-8840]

Choctawhatchee, Pea and Yellow Rivers Watershed Management Authority. 2000. Recommended Practices Manual: A Guideline for Maintenance and Service of Unpaved Roads. 59 p. [[www.epa.gov/owow/nps/unpavedroads.html](http://www.epa.gov/owow/nps/unpavedroads.html) ]

FishXing Development Team. 2000. "FishXing: an interactive CD-ROM." USDA, Forest Service, Humboldt State Univ., Fed. Hwy. Admin. Free. [See website below]

Tri-County ESA Response Effort. 2000. Regional Road Maintenance – Endangered Species Act Program Guidelines. Regional Road Maintenance Technical Working Group. King County, Washington. [[www.metrokc.gov/roadcon/bmp/pdfguide.htm](http://www.metrokc.gov/roadcon/bmp/pdfguide.htm)]

USDA Forest Service. 2000. Water/Road Interaction Technology Series. San Dimas Technology and Development Center. San Dimas, CA. Free. [(909)599-1267 x246]

## Websites with Relevant Information

California Dept. of Fish & Game [www.dfg.ca.gov/nafwb/index.html](http://www.dfg.ca.gov/nafwb/index.html)

# 11-B TRAINING RESOURCES

California Dept. of Transportation	<a href="http://www.dot.ca.gov">www.dot.ca.gov</a>
Center for Watershed Protection	<a href="http://www.cwp.org">www.cwp.org</a>
Federal Highway Administration	<a href="http://www.fhwa.dot.gov">www.fhwa.dot.gov</a>
International Erosion Control Association	<a href="http://www.ieca.org">www.ieca.org</a>
King County (Washington) – Regional Road Maintenance ESA Program	<a href="http://www.metrokc.gov/roadcon/bmp/pdfguide.htm">www.metrokc.gov/roadcon/bmp/pdfguide.htm</a>
Oregon Dept. of Transportation	<a href="http://www.odot.state.or.us">www.odot.state.or.us</a>
Oregon Road/Stream Crossing Restoration Guide	<a href="http://www.nwr.noaa.gov/1salmon/salmesa/4ddocs/orfishps.htm">www.nwr.noaa.gov/1salmon/salmesa/4ddocs/orfishps.htm</a>
Transportation Research Board	<a href="http://nationalacademies.org/transportation/">//nationalacademies.org/transportation/</a>
U.S Environmental Protection Agency Office of Water	<a href="http://www.epa.gov/ow">www.epa.gov/ow</a>
U.S. Forest Service Fish Crossing software	<a href="http://www.stream.fs.fed.us/fishxing">www.stream.fs.fed.us/fishxing</a>
Washington Dept. of Transportation	<a href="http://www.wa.gov/wdot">www.wa.gov/wdot</a>
Washington Dept. of Fish and Wildlife Fish Passage Technical Assistance	<a href="http://www.wa.gov/wdfw/hab/engineer/habeng.htm">www.wa.gov/wdfw/hab/engineer/habeng.htm</a>
Watershed Management Council	<a href="http://www.watershed.org/wmc">www.watershed.org/wmc</a>

## References – See Section 12-C

### Workshops / Short Courses / Conferences

- CalTrans: Local Technical Assistance Program (LTAP) [www.dot.ca.gov](http://www.dot.ca.gov)
- International Erosion Control Association. Workshops and short courses. P.O. Box 774904, Steamboat Springs, CO 80477-4904. (970)879-3010. [//www.ieca.org](http://www.ieca.org)  
e-mail: [ecinfo@ieca.org](mailto:ecinfo@ieca.org)
- Pacific Watershed Associates. Special workshops on road maintenance practices and inventorying methods. P.O. Box 4433, Arcata CA 95519. (707)839-5130. E-mail: [pwa@northcoast.com](mailto:pwa@northcoast.com)

## 11-B TRAINING RESOURCES

University of California, Davis Extension. Short courses on erosion control, environmental regulations. 1-800-752-0881 or [www.universityextension.ucdavis.edu](http://www.universityextension.ucdavis.edu)

University of California, Berkeley: Institute of Transportation Studies (ITS)/ Technology Transfer Program.

“Roadway Drainage Techniques: The Road Show” workshop:

<http://www.its.berkeley.edu/techtransfer/training/group/rdt.html>

“Maintenance and Inspection Practice for Local Bridges” training class.

[www.its.berkeley.edu/techtransfer/training/](http://www.its.berkeley.edu/techtransfer/training/)

Washington State University. Annual “Road and Street Maintenance Supervisors’ Conferences”. 1-800-942-4978 or [www.eus.wsu.edu/c&i](http://www.eus.wsu.edu/c&i)

Watershed Management Council. Conferences, field tours, short courses, and workshops. (510)273-9066 or [www.watershed.org/wmc](http://www.watershed.org/wmc)

## 11-C

# ANNUAL AWARD

**Description:** Exceptional service by county employees in protecting water quality and stream habitat while maintaining county roads and public safety needs to be officially recognized. An annual recognition award, such as a “Clean Water Award”, from the County to one or more employees is proposed.

**Proposed Policy:**

1. Encourage and support all of its personnel in complying with the Manual.
2. Perform Implementation Monitoring as described in Section 10-B-1 of the Manual. Records shall be kept of the results, noting not just the problems but also the crews and individual members who seem to be doing exceptional work.
3. Establish and promote an Annual Clean Water Award (or similar name) that recognizes individuals (or a road crew) for performing exceptional service in maintaining roads, water quality and stream habitat.
4. The Award shall be made publicly at an annual fun event, with publicity in the internal county agency news and in the local media. A wall plaque with the recipient’s name shall be presented to the winner, as well as having the person’s name engraved on a master plaque displayed in a prominent location in the County DPW/DOT main office(s).
5. Record of the recognition shall be included in the person’s personnel file.

