



**BIOENGINEERING and BIOTECHNICAL WORKSHOP  
STREAMBANK STABILIZATION TECHNIQUES  
"RETURN TO WILLOW CREEK" JUNE 24 & 25, 2010**



**Classroom Training**

**June 24, 2010**

***The Glenmore Inn & Convention Centre  
2720 Glenmore Trail SE Calgary, AB  
T2C 2E6***

**Field re-visit of 2008 site**

**June 25, 2010**

**Willow Creek**

**East of Hwy. 2**

**6 kms. North of Hwy 3 Junction  
10 kms. North of Ft. Macleod, Alberta**

This 2-day course will provide both theoretical and applied training in bioengineering and biotechnical stabilization techniques with a strong emphasis on erosion and sediment control. We will revisit the site of the 2008 Willow Creek bio-engineering training project, review the design, construction issues and the success of the work. This project was featured in a recent edition of *Lands & Water Magazine*. The material presented will be of use to regulators, designers, project managers, and contractors.

**DAY 1: June 24<sup>th</sup> - Classroom Training** (Topics will include):

- Benefits and techniques of bioengineering and biotechnical slope and streambank stabilization
- Harvesting and handling of woody cuttings
- Re-directive and resistive techniques: rock vanes, longitudinal peaked stone toe protection, vegetated riprap, rootwad revetments
- Biotechnical techniques: modified brush layering, live siltation, willow wattles, live staking
- Erosion control techniques: compost berms and blankets, seeding, silt fencing
- Selection and implementation of techniques

**DAY 2: June 25<sup>th</sup>** -Travel to the Willow Creek field site will be by passenger coach or if you prefer, by your own vehicle. (There is space for parking). *The bus will be on-site all day to provide a washroom, resting, and shelter facility.* We will review and assess all BMPs that were installed in 2008 including hydro-mulching (straw, fibres, tackifiers) and hydroseeding, blown compost berm and blanket placement, live siltation and brush layering behind LPSTP, geotextile soil wrap, turf reinforcement matting, and other procedures such as Slope stabilization by soil nailing.

**Your Instructor: John McCullah, Salix Applied Earthcare** - (Redding, California, USA), John is a recognized expert in erosion control, watershed restoration, and technical training. He has contributed significantly in the development of the Alberta Infrastructure and Transportation Best Management Practices for erosion control. John has led many hands-on training courses across North America and has developed the *Dirt Time* training video series.



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## BIOENGINEERING and BIOTECHNICAL STREAMBANK STABILIZATION TECHNIQUES Classroom Workshop and Field Visit

June 24-25, 2010  
Calgary, Alberta & Willow Creek, Alberta (Field Site)

### Workshop Schedule

<b>DAY ONE THURSDAY, June 24<sup>th</sup> Glenmore Inn &amp; Convention Centre</b>	
8:00 AM – 8:30 AM	Continental Breakfast & Registration
8:30 AM – 12:00 PM	Classroom Training
12:00 PM – 1:00 PM	Lunch *
1:00 PM – 5:00 PM	Classroom Training
<b>DAY TWO FRIDAY, June 25<sup>th</sup> Field Visit</b>	
8:15 AM	Meet in hotel lobby to pick up bag lunches** for field trip and board the coach. (those who prefer to drive on their own, meet on-site at 9:45 AM)
8:30 AM – 9:45 AM	Travel to Willow Creek Site via Passenger Coach
9:45 AM – 4:00 PM	Field visit led by our Instructor, John McCullah -- Lunch on site
4:00 PM	Return to Calgary

\* Day 1 Buffet Lunch will be provided in the meeting room.

\*\* Day 2 Bag Lunches will be provided.

\*\* For those who wish only to participant in the field visit on DAY 2, we are making this an option.

### Accommodation

Our host hotel and meeting venue is The Glenmore Inn & Convention Centre, 2720 Glenmore Trail SE, Calgary, AB T2C 2E6. Phone 1-800-661-3163 or 403-279-8611. (<http://www.glenmoreinn.com>).

A block of 15 rooms has been reserved for out of town attendees, requiring accommodation.

*Please mention that you are with the C-TEP Bioengineering Workshop when booking your rooms. Reserve early!*

If it is more convenient for some attendees to travel to the field site on their own on Day 2, you can meet on site at 9:45 AM.

Registrants are responsible for their own accommodation, breakfast on Day 2 and dinners.



## BIOENGINEERING & BIOTECHNICAL WORKSHOP 2010

**Registration Form** (fax to 780-422-2027) or email: [nlittle@c-tep.com](mailto:nlittle@c-tep.com)

**Name:** \_\_\_\_\_

**Organization:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**City/Prov:** \_\_\_\_\_ **Postal Code:** \_\_\_\_\_

**Tel:** \_\_\_\_\_ **Fax:** \_\_\_\_\_ **Email:** \_\_\_\_\_

### WORKSHOP FEES:

Organization	Fee (DAY 1 & 2)	Fee (Day 2 only)
Alberta Transportation & Other C-TEP Members	\$699	\$299
Other Government Agencies	\$699	\$299
Non C-TEP or Non Government	\$949	\$499

**Your workshop fee (GST Exempt), includes:**

- Classroom materials, continental breakfast and buffet lunch on Day 1.
- Coach bus transportation to field site (return) and a bag lunch on Day 2.
- Fees are due and payable upon receipt of confirmation.
- **BULK DISCOUNT:** Enrol 4 from your organization and the 5<sup>th</sup> person will receive a 1/2 price discount.

**Payment Method:**    Credit Card       Cheque      DAY 1 & 2         DAY 2 ONLY  

**Payment Amount:** \$ \_\_\_\_\_

Visa or    MasterCard: fax to 780-422-2027 or email [nlittle@c-tep.com](mailto:nlittle@c-tep.com)

Credit card Number: \_\_\_\_\_

Print name as it appears on the card: \_\_\_\_\_

Expiry Month/Year: \_\_\_\_\_      Signature: \_\_\_\_\_

**By Cheque :**

Please make cheques payable to "C-TEP" and send with registration form to:

C-TEP  
c/o Alberta Transportation - Technical Standards Branch  
2<sup>nd</sup> Floor, Twin Atria Bldg. 4999 – 98 Avenue  
Edmonton, AB Canada T6B 2X3  
Attention: Neil Little   Executive Director



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## BIOENGINEERING & BIOTECHNICAL WORKSHOP 2010

### Registrant Responsibilities

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- Registrants are responsible for bringing appropriate footwear (we are on rough terrain), reflective vests, rain gear, bottled water, notebooks & pens.
- Registrants will be required to sign a Waiver of Liability for the field trip.
- Parking is available on site for those choosing to bring their own vehicles.

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- Space is limited; early registration is encouraged.
  - The registration/cancellation deadline is June 11, 2010.
  - There will be no refunds thereafter, although substitutions are permitted.
  - No registration should be considered final until confirmation is received.

***We look forward to seeing you !***

**For questions regarding registration, contact:**

**Neil Little, C-TEP Executive Director**  
**Phone: 780-422-7634**  
**Email: [nlittle@c-tep.com](mailto:nlittle@c-tep.com)      [www.c-tep.com](http://www.c-tep.com)**

**For questions regarding technical information contact:**

**Fred Cheng, P.Eng., Alberta Transportation**  
**Phone: 780-415-1039**  
**Email: [fred.cheng@gov.ab.ca](mailto:fred.cheng@gov.ab.ca)**