



One Day GeoFluv Training Offer

Singleton 13th August 2013

Level 1 Introductory training for Natural Regrade involves 16 hours of training (See agenda attached). This training is usually offered as 4 sessions of 4 hours each over the web.

Nicholas Bugosh will be visiting Australia in August 2013. His visit provides an opportunity for interested participants to complete 50% of Level 1 training with Nicholas directly. This training will include:-

a) GeoFluv Introduction 08:30 – 10:30 (Open Session.)
Singleton Diggers Club, York Street, Singleton

- PowerPoint overview of GeoFluv™ approach
- Discuss GeoFluv Essentials
- Discussions of paradigm shifts in thinking about rehabilitation goals, practices, inspections

b) Field-Work inspection 11:00- 14:00 (Training Participants Only)
Hunter River Valley

- Field work to show how to identify suitable reference area and collect GeoFluv input parameters: drainage density, ridge to head of channel distance, 'A-channel' reach length
- Review input values in order of importance and relate them to the 'Essential GeoFluv Concepts'

c) Software introduction and Overview 14:30 – 17:30 (Training Participants Only)
Singleton Diggers Club, York Street, Singleton

- How to make alternate GeoFluv designs and edit them with different values in each sub-watershed to search for optimal solution
- Use Run Off Tracking to identify existing and design flow patterns
- Use of the GeoFluv Channel Inspector to inspect draft designs (tractive force, etc)
- Use of Slope Zone Analysis to check slope steepness
- A session to discuss your key issues, discuss planning, timing, construction (equipment, machine control), channel roughness, perennial streams, etc.

Nicholas' visit provides an opportunity to get this material in a live classroom setting with the developer of the GeoFluv method and Natural Regrade software. Normally to get this training live, you would either travel to the U.S.A. or pay travel costs to bring the training to Australia. Here is an opportunity to get the material that is best covered face to face and in the field without extra travel costs. The remaining 8 hours of the training can be completed in two, four-hour web meeting sessions.

Cost for One day of GeoFluv Training with Nicholas Bugosh

\$2,530 (including GST) per company. The class will be limited to 18 participants – so please register early.

Please note that to complete the requirements of the Level 1 GeoFluv Training an additional 8 hours computer based training is required. The cost of this additional training will be approximately the same (subject to currency exchange rates). Arrangements for this additional training will be scheduled with each participant individually.

Preparation for Training

In preparation for training, please prepare the following

- Bring a laptop computer. Software will be provided if you do not have Natural Regrade installed. Please note that we find training is optimized when that 2 people share a computer
- The Reference site is located approximately 20 minutes' drive from Singleton. We will arrange car-pooling to the Reference Site on the day.
- Lunches will be provided

Register for Training

If planning to attend the training, please register by Thursday 8th August with

Rod Eckels
Landforma
rod@landforma.com
02 8084 5524

2-day *Natural Regrade* Custom Introductory training agenda

Day 1

08:00 Setup, load example files (will determine during course of training if updates are needed)

08:30 Explanation about software functions, PowerPoint overview of GeoFluv™ approach (include Essentials), introductory remarks about training goals and paradigm shift

09:15 Carlson Software Civil package overview

- Menus
- Configuration, .crd file, drawing cleanup
- Commonly used tools, (layers, on/off, freeze, draw polyline, 2D vs 3D polyline, close polyline, erase, draw circle), add polyline vertices, drag vertices, drag polyline, make a meander to reinforce design terminology, cut/fill commands

10:00 Break

10:15 *Natural Regrade* demonstration (Regrade 1) without explanation of commands

10:30 Class runs through Regrade 1 example

10:45 Explain 'Design GeoFluv Regrade' dockable dialog box commands

- Version number
- 'File' button
- 'Settings' button, show slides of 'ridge to head of channel', show effects of 'ridge to head of channel' setting, pcp. setting
- 'Setup' tab, file selection boxes have three options

12:00 Lunch

13:00 Explain 'Channels' tab

- displayed information only relevant to channel in 'Current Channel' window
- channels and subwatersheds are designed at this point, show profile
- naming convention
- 'Add' all channels, explain interactive dialog
- drainage density update
- generate channel 'Report'
- explain 'Reread Valley Bottoms'

13:45 Explain 'Output' tab

- the design output is the result of the inputs (garbage in, garbage out), changes to the drawing do not change the inputs (DWG tab next)
- 'Preview' allows cursory inspection to make major edits before proceeding, demonstrate adding channel bend
- 'Draw Design Surface' outputs the draft design as a drawing, explain 'Triangulate and Contour' dialog box
- explain contouring inspector
- show completed draft Regrade 1 design
- review 'Summary Report'
- return to *Natural Regrade* menu and demonstrate 'GeoFluv Channel Inspector'

14:15 Explain 'DWG' tab

- demonstrate 'GeoFluv Contour Viewer'
- demonstrate 'GeoFluv Design Viewer'
- return to 'Output' tab and run 'Update Cut / Fill'
- run 'Cut/Fill Centroids'

- **compare ‘Channels Cross Section Report’ with ‘Channels’ tabs ‘Report’**
- demonstrate ‘View Longitudinal Profile’
- demonstrate ‘Edit Longitudinal Profile’
- demonstrate ‘Auto Longitudinal Profile’
- explain ‘Save Design Surface .tin’ , this is format for direct output to machine control

15:00 Break

15:15 Return to ‘Channels’ tab, explain ‘Current Channels Settings’

16:00 Class returns to Regrade 1 example and varies settings to estimated Arizona project and other site values, produce different draft alternatives

17:00 Break

17:10 Compare and discuss example alternatives, Open question and answer / discussion

17:15 End session

Day 2

08:00 Field work to show how to collect GeoFluv™ input parameters: suitable reference area, drainage density, ridge to head of channel distance, ‘A-channel’ reach length

12:00 Lunch

13:00 Review input values in order of importance, review ‘Essential GeoFluv Concepts’

13:30 Design Regrade 1 with different values in each subwatershed, search for optimal solution

14:30 Discuss results

15:00 Break

15:15 Address key issues, discuss planning, timing, construction (equipment, machine control, channel roughness, perennial streams, etc.)

17:00 Open discussion

17:30 End