



Carlson Mining's Natural Regrade Module

Carlson Natural Regrade with GeoFluv™ applies fluvial geomorphic principles to upland landform design. This module helps you create a landscape design that mimics functions of a natural landscape that would naturally evolve over time. The result is a stable hydrologic equilibrium... naturally.

<p>Geomorphic Reclamation</p> <p>The essence of the GeoFluv™ approach is to identify the type of drainage network, i.e., stream channels and valleys, which would tend to form over a long time given the site's earth materials, relief, and climate to achieve a stable landform, and to design and build that landform. The resulting slopes and stream channels are stable because they are in balance with these conditions. They are a reclamation alternative to uniform slopes with terraces and down-drains. Rather than fight the natural forces that shape the land, GeoFluv™ helps the user create a landscape that harmonizes with these forces.</p> <p>Increased Accuracy and Flexibility of Designs</p> <ul style="list-style-type: none"> ▪ View topographic maps and three-dimensional images of the landscape design. ▪ One-button volumes and cut/fill material balance calculations for designs. ▪ Rapid evaluation of many landscape design alternatives allows the user to select the optimum design for bond alternatives, construction costs, changing mine plans, land use, etc. ▪ Ideal for integrating with GPS and laser machine control to simplify and speed up construction and reduce costs. 	<p style="text-align: center;">SOFTWARE: Carlson Mining/Civil Suite</p> <p style="text-align: center;">SMCRA BENEFITS/USES:</p> <ul style="list-style-type: none"> ▪ Based on all discharges. ▪ Natural channel morphology conveys water and sediment discharge; hydrologic balance. ▪ Built with on-site materials. ▪ Cost is significantly lower than gradient terraces and down drains on steep slopes. ▪ Self-maintaining. ▪ Can reclaim steep slopes in stable and suitable configurations, save money on material moving. ▪ Increased slope aspect diversity promotes vegetation success and animal habitat. ▪ Natural beauty. ▪ Landscape designs can vary and provide alternatives. <p style="text-align: center;">TIPS TRAINING CLASSES: CAD301: Carlson Mining; Field, Hydrology, and Natural Regrade for Permitting and Reclamation</p> <p style="text-align: center;">NEED HELP ???? Contact: Chris Kiser ckiser@osmre.gov</p>
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