

5.0 RECOMMENDATIONS

This page intentionally left blank.

5.0 RECOMMENDATIONS

Specific recommendations that became evident during this project include:

1. Standardize WDEQ/LQD reporting methods. There is an abundance of useful premined channel information dispersed among several sources at WDEQ, which presently is difficult to extract. Mine permit applications, in particular, provide an enormous resource (above and beyond premined channel data) if rigid guidelines for acceptable contents are established and enforced.
2. When incorporating this stability evaluation into channel design, use the most site specific data available for the area to be reclaimed. Channel data from distant areas aids channel design only when more specific information is not available. Channel bed sediment data may improve channel parameter predictions.
3. If a statistical evaluation for evaluating channel designs is a desirable approach for regulators to assess channel designs, and mine operators want premined information for designing reclaimed channels, then additional data are necessary to fill in gaps in drainage basin sizes studied in the main coal bearing areas of Wyoming. Regression analyses are only as complete as the initial data set. While 81 channels provides reasonable coverage, further premined data from important coal-rich regions of Wyoming would further test and verify these findings.
4. Reclamation practices have generally proven quite successful in reestablishing vegetation cover on disturbed lands. However, the technology does not presently exist to restore physical properties of soil or geologic bedrock with the same success. Much can be gained in reclamation science if a concerted effort is launched to address and rectify the influence of a disturbed substrate on channel stability.

5. Making the data available on the newly developed TIPS database (especially the Cumulative Hydrologic Impact Assessment (CHIA) data) is consistent with our goals of making the data set available to a wide array of users. Arrangements for data transfer are currently in progress.