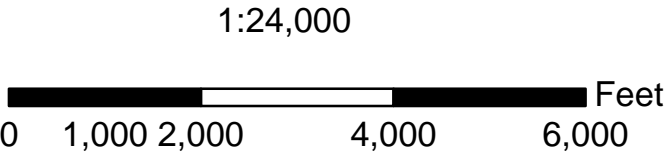


| Section | HECRAS Station     | Distance<br>Downstream<br>of Dam, ft | Max. Elev<br>of Breach<br>Flood | Elevation of<br>Stream bed | Travel<br>Time, hrs | Flow at<br>Section @<br>Peak Elev | Flow Top<br>Width at<br>Section @<br>Peak Elev | Avg. Velocity<br>at Section,<br>ft/sec |
|---------|--------------------|--------------------------------------|---------------------------------|----------------------------|---------------------|-----------------------------------|--|--|
| Cl Dam  | DDG- 0223_1_22547  | 0                                    | 1048.7                          | 1033.9                     | 0.2                 | 22,443                            | 287  | 9.7                                    |
| 40      | DDG- 0223_1_21298  | 1,248                                | 1037.1                          | 1019.8                     | 0.2                 | 20,574                            | 353  | 9.0                                    |
| 39      | DDG- 0223_1_20668  | 1,879                                | 1030.8                          | 1014.6                     | 0.3                 | 19,755                            | 543  | 4.8                                    |
| 38      | DDG- 0223_1_20168  | 2,379                                | 1028.4                          | 1013.5                     | 0.3                 | 18,426                            | 412  | 6.0                                    |
| 37      | DDG- 0223_1_19548  | 2,999                                | 1026.7                          | 1010.2                     | 0.3                 | 17,538                            | 498  | 5.0                                    |
| 36      | DDG- 0223_1_18674  | 3,872                                | 1022.1                          | 1007.1                     | 0.3                 | 15,628                            | 612  | 2.8                                    |
| 35      | DDG- 0223_1_17485  | 5,061                                | 1015.8                          | 1002.1                     | 0.3                 | 15,076                            | 301  | 8.1                                    |
| 34      | DDG- 0223_1_16690  | 5,857                                | 1011.3                          | 999.8                      | 0.4                 | 13,934                            | 652  | 4.4                                    |
| 33      | DDG- 0223_1_15401  | 7,146                                | 1005.9                          | 992.3                      | 0.4                 | 12,958                            | 366  | 6.9                                    |
| 32      | DDG- 0223_1_15114  | 7,432                                | 1004.8                          | 992.0                      | 0.5                 | 12,091                            | 790  | 3.5                                    |
| 31      | DDG- 0223_1_13448  | 9,099                                | 997.9                           | 985.9                      | 0.5                 | 10,916                            | 666  | 3.5                                    |
| 30      | DDG- 0223_1_12209  | 10,337                               | 993.6                           | 983.7                      | 0.6                 | 10,520                            | 716  | 4.3                                    |
| 29      | DDG- 0223_1_11349  | 11,198                               | 990.6                           | 982.4                      | 0.6                 | 10,391                            | 539  | 5.4                                    |
| 28      | DDG- 0223_1_9983   | 12,564                               | 985.6                           | 976.9                      | 0.6                 | 9,755                             | 893  | 3.2                                    |
| 27      | DDG- 0223_1_9879   | 12,668                               | 985.2                           | 977.2                      | 0.7                 | 9,642                             | 895  | 3.2                                    |
| 26      | DDG- 0223_1_9280   | 13,267                               | 983.5                           | 973.1                      | 0.7                 | 8,859                             | 660  | 3.6                                    |
| 25      | DDG- 0223_1_8207   | 14,340                               | 980.4                           | 969.9                      | 0.8                 | 8,200                             | 454  | 4.2                                    |
| 24      | DDG- 0223_1_7475   | 15,072                               | 978.2                           | 964.4                      | 0.8                 | 7,876                             | 460  | 3.7                                    |
| 23      | DDG- 0223_1_6394   | 16,153                               | 972.6                           | 960.3                      | 0.8                 | 7,591                             | 412  | 3.5                                    |
| 22      | DDG- 0223_1_5485   | 17,062                               | 967.7                           | 955.2                      | 0.9                 | 7,366                             | 332  | 4.1                                    |
| 21      | DDG- 0223_1_3981   | 18,566                               | 958.9                           | 950.7                      | 0.9                 | 7,226                             | 495  | 4.4                                    |
| 20      | DDG- 0223_1_2663   | 19,884                               | 953.9                           | 942.6                      | 1.0                 | 7,049                             | 449  | 4.2                                    |
| 19      | DDG- 0223_1_1583   | 20,964                               | 944.1                           | 936.3                      | 1.0                 | 7,008                             | 416  | 6.1                                    |
| 18      | Rock Creek_1_65823 | 22,547                               | 933.3                           | 923.0                      | 1.1                 | 6,330                             | 173  | 7.6                                    |
| 18_TRIB | DDG- 0274_1_18642  | 23,172                               | 933.3                           | 926.7                      | 1.1                 | 12                                | 82   | 0.0                                    |
| 17      | Rock Creek_1_65619 | 22,751                               | 933.1                           | 921.6                      | 1.1                 | 6,312                             | 249  | 4.1                                    |
| 16      | Rock Creek_1_63393 | 24,977                               | 925.8                           | 914.8                      | 1.2                 | 5,992                             | 394  | 5.4                                    |
| 15      | Rock Creek_1_60812 | 27,558                               | 916.7                           | 906.0                      | 1.4                 | 5,561                             | 386  | 3.3                                    |
| 14      | Rock Creek_1_59308 | 29,062                               | 913.2                           | 901.1                      | 1.5                 | 4,965                             | 346  | 3.2                                    |
| 13      | Rock Creek_1_57239 | 31,131                               | 910.0                           | 899.0                      | 1.6                 | 4,596                             | 586  | 2.9                                    |
| 12      | Rock Creek_1_55793 | 32,577                               | 908.2                           | 896.1                      | 1.7                 | 3,896                             | 1,010  | 1.4                                    |
| 11      | Rock Creek_1_54631 | 33,739                               | 904.5                           | 894.5                      | 1.8                 | 3,819                             | 376  | 2.7                                    |
| 10      | Rock Creek_1_53631 | 34,739                               | 901.8                           | 888.9                      | 2.0                 | 3,504                             | 319  | 2.6                                    |
| 9       | Rock Creek_1_50535 | 37,835                               | 897.9                           | 886.9                      | 2.1                 | 3,194                             | 318  | 3.2                                    |
| 8       | Rock Creek_1_48265 | 40,104                               | 890.9                           | 881.9                      | 2.3                 | 3,040                             | 178  | 5.0                                    |

\* Travel time is measured from the initiation of breach formation to the time the breach wave arrives at the section.

The inundation area was developed based on a breach with the water surface at the Top of Dam elevation. Cross Sections were developed using 2-meter LIDAR data.



Attachment 1:  
Inundation Area  
Boundary Map

| REVISIONS |          |       |
|-----------|----------|-------|
| DATE      | APPROVED | TITLE |
|           |          |       |
|           |          |       |

| Date     | 06/20/09 |
|----------|----------|
| Designed | EWR      |
| Drawn    | DMM      |
| Checked  | JW       |
| Approved | AGB      |

DDG-0223 KS04082  
DOUGLAS COUNTY, KANSAS



| File Name    |              |
|--------------|--------------|
| Drawing Name |              |
| 6/29/2009    | Sheet 1 of 2 |