DATA INTERPRETATION

• Before the fire, Stout Canyon’s bank geometry was stable.
• After the fire the bank geometry changed drastically.
• The largest change occurred two years after the fire.
• The average size of sediment (D50) in the substrate decreased after the fire.
• As of 2014, the D50 shows signs of increasing and returning to pre-fire conditions.
• The area at bankfull, width to depth ratio, and wetted perimeter all increased after the fire.
• The floodplain appears wider and less vegetated after the fire.

CONCLUSIONS

The data show that Stout Canyon underwent changes in morphology similar to streams with spring-runoff high water events. The substrate initially underwent a fining process after the fire but began to stabilize and return to pre-fire conditions within three years. The floodplain was completely destroyed after the fire. A wider and shallower floodplain reformed three years after the fire. The only notable difference between Stout Canyon and with spring runoff high water events is that the banks took longer to re-stabilize as evident in the fact that the greatest change in bank geometry occurring in the second year rather than in the first year as is typical in spring runoff streams. It is concluded that banks will take longer to re-stabilize in monsoon-dominated-systems due to the abrupt and destructive nature of high water events caused by monsoon rains.

DATA

- Before the fire, Stout Canyon’s bank geometry was stable.
- After the fire the bank geometry changed drastically.
- The largest change occurred two years after the fire.
- The average size of sediment (D50) in the substrate decreased after the fire.
- As of 2014, the D50 shows signs of increasing and returning to pre-fire conditions.
- The area at bankfull, width to depth ratio, and wetted perimeter all increased after the fire.
- The floodplain appears wider and less vegetated after the fire.

CONCLUSIONS

The data show that Stout Canyon underwent changes in morphology similar to streams with spring-runoff high water events. The substrate initially underwent a fining process after the fire but began to stabilize and return to pre-fire conditions within three years. The floodplain was completely destroyed after the fire. A wider and shallower floodplain reformed three years after the fire. The only notable difference between Stout Canyon and with spring runoff high water events is that the banks took longer to re-stabilize as evident in the fact that the greatest change in bank geometry occurring in the second year rather than in the first year as is typical in spring runoff streams. It is concluded that banks will take longer to re-stabilize in monsoon-dominated-systems due to the abrupt and destructive nature of high water events caused by monsoon rains.

DATA INTERPRETATION

• Before the fire, Stout Canyon’s bank geometry was stable.
• After the fire the bank geometry changed drastically.
• The largest change occurred two years after the fire.
• The average size of sediment (D50) in the substrate decreased after the fire.
• As of 2014, the D50 shows signs of increasing and returning to pre-fire conditions.
• The area at bankfull, width to depth ratio, and wetted perimeter all increased after the fire.
• The floodplain appears wider and less vegetated after the fire.

CONCLUSIONS

The data show that Stout Canyon underwent changes in morphology similar to streams with spring-runoff high water events. The substrate initially underwent a fining process after the fire but began to stabilize and return to pre-fire conditions within three years. The floodplain was completely destroyed after the fire. A wider and shallower floodplain reformed three years after the fire. The only notable difference between Stout Canyon and with spring runoff high water events is that the banks took longer to re-stabilize as evident in the fact that the greatest change in bank geometry occurring in the second year rather than in the first year as is typical in spring runoff streams. It is concluded that banks will take longer to re-stabilize in monsoon-dominated-systems due to the abrupt and destructive nature of high water events caused by monsoon rains.