



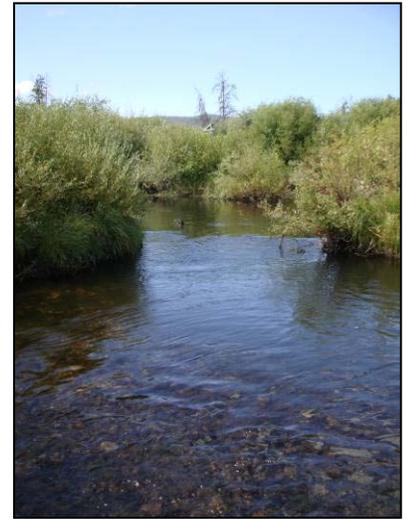
Monitoring Stream Channel Characteristics in the UCBN

Network parks where resource is being monitored

- Big Hole National Battlefield (BIHO)
- City of Rocks National Reserve (CIRO)
- John Day Fossil Beds National Monument (JODA)
- Nez Perce National Historical Park (NEPE)
- Whitman Mission National Historical Site (WHMI)

Importance: Stream Channels- an indicator of stream health

There is an intimate connection between stream channels and the surrounding landscape. Stream channels are a product of regional geomorphology, hydrology, riparian vegetation, upland vegetation, land use and water use. Within a stream, channel characteristics profoundly influence habitat for macroinvertebrates and fish. This connection between the surrounding landscape, stream channels, and aquatic habitat makes monitoring channel characteristics an important aspect of natural resource monitoring in the UCBN. In addition, stream channel monitoring assists in the interpretation of results obtained during the UCBNs integrated water quality monitoring protocol.



The North Fork Big Hole River through BIHO has meanders and oxbows that provide exceptional habitat for birds and other wildlife

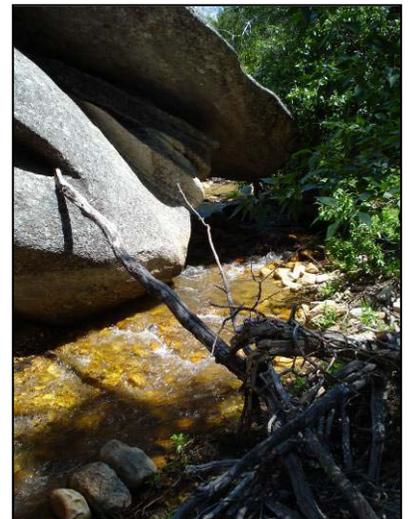
Objectives:

1. Determine the status of bank stability, percent undercut, bank angle, percent fines, and other key stream channel characteristics for selected wadeable stream reaches in BIHO, CIRO, JODA, NEPE, and WHMI.
2. Determine the direction and magnitude of change over time for bank stability, percent undercut, bank angle, percent fines, and other key stream channel characteristics, and establish whether those changes reflect impacts from management or land use activities in BIHO, CIRO, JODA, NEPE, and WHMI.
3. Determine the condition of key stream channel attributes within selected wadeable UCBN stream reaches, relative to PIBO sample reaches in the same watershed.
4. Determine if changes in stream channels, specifically bank erosion, are likely to negatively impact cultural resources within the floodplain at BIHO.

Management Applications

- Provide information on the condition of aquatic habitats
- Detect habitat degradation and potential concerns to park management
- Support park resource planning and restoration efforts

In May 2010 the UCBN submitted a draft protocol for peer review. The UCBN stream channel monitoring protocol uses an existing monitoring protocol developed by the United States Forest Service (USFS) PACFISH/INFISH Effectiveness Monitoring (PIBO-EM) Program. In addition to the use of an existing protocol, the UCBN has formed an interagency agreement with the USFS, for the PIBO program to use their monitoring teams to collect stream channel monitoring data in UCBN parks, ensuring consistency and enhancing efficiency. Using the PIBO protocol will provide a unique opportunity to examine park stream channel resources relative to other streams in the Pacific Northwest.



Almo Creek flows out of the Sawtooth National Forest and into CIRO/Castle Rocks State Park.

Contact Information

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