

## Appendix B. Public Law (PL) 84-99 Activities.

1. This Appendix has three parts: Emergency Operations Center, Summary of Flood Response and Emergency Operations Center (EOC) Activities, and Chronological Summary of Flood Responses.

a. **Emergency Operations Center.** The EOC monitored, coordinated and reported activities on this event on a 24 hour basis, from either the Emergency Management Branch office or remotely at home. Most reporting was done by ENGLink, SITREPs, informal e-mail and phone calls. ENGLink, SITREPs are noted in the Chronology and contained in Appendix G, Situation Reports.

### b. **Summary of Flood Response and EOC activities:**

On May 16<sup>th</sup>, 2006 Seattle District activated the Emergency Operations Center (EOC) for response to the Kootenai River Basin flood. On May 19<sup>th</sup>, 2006, LTC Leighow, Acting District Commander declared a flood emergency and the Corps flood teams were deployed and began providing technical and direct assistance to the Bonners Ferry community. These flood teams continually assisted both the State of Idaho and Montana with technical and direct assistance until the EOC ceased operations on June 28<sup>th</sup>.

The Corps expended over \$1.4 million dollars on emergency response activities in the Kootenai river basin. Emergency services included in this budget included delivering over 80,000 sandbags to the local community technical assistance to property owners and the local, county and State governments. This funding also maintained the Corps direct assistance efforts with the emergency levee repairs in the Bonners Ferry community.

Direct assistance furnished by the Corps included emergency levee repairs to the right bank levee down stream of the Highway 95 Bridge in Bonners Ferry. The levee was severely damaged during the initial high Kootenai river flows and a complete levee failure was imminent. With a Kootenai river stage of 1762' at the Bonners Ferry gage, a levee breach would have resulted in major flooding of the North Bonners Ferry community. HAD there been a breach, the flood waters could have cut off access to the City's sewage treatment facility; could have damaged the above ground sewer line, which may have caused a release of raw sewage; and could have caused damage to utilities, roads and local homes protected by this levee. Homes, roads, and utilities directly behind the levee would have been inundated with 6' to 8' of flood water had the levee been breached.

The Kootenai River flood team assisted Boundary and Lincoln County with technical assistance throughout the event. Examples of technical assistance provided were:

- Directing sandbag operations on the Moyie and Kootenai Rivers
- Teaching sandbagging filling and placement to local fire department emergency responders
- Providing flood proofing recommendations to individual property owners
- Assisting the Burlington Northern railroad with an erosion protection plan
- Supplementing Boundary County levee patrols

- Assisting with damage assessments during and immediately following the event
- Assisting local governments with flood response planning, including analyzing predicted weather and river forecasts.
- Providing information to downstream property owners as water elevations rose to help them determine pumping requirements.
- Assisting in repair of upstream levee breach

The Corps flood response furnished effective and timely support to the local communities during the flood event. Personnel from throughout the organization contributed significantly to make this response mission a success.

**c. Chronological Summary of Flood Response:**

May 16<sup>th</sup>: Above normal temperatures in northern Idaho and northwestern Montana increased snow pack melting and increased runoff in tributaries to the Kootenai River. Seattle District activated the EOC and requested funding (\$20,000) from Northwestern Division (NWD) for EOC activities. EOC actions include monitoring the rivers and making contact with County and State emergency management staff.

May 17<sup>th</sup>: Reports back from locals and Seattle District water management indicate that Kootenai River flows may be a concern in both Montana and Idaho. There were predictions of 41,000 CFS at Troy. A flow of approximately 41,000 CFS at Troy would begin to flood some residents along the river. Flood team members from the Libby Dam begin working with Lincoln County and the cities of Libby and Troy to develop a flood response plan. Boundary County and the City of Bonners Ferry are also concerned about potential river levels. The community of Eastport along the Moyie River has begun to experience flooding and Boundary County began sandbagging low areas along the river.

May 18<sup>th</sup>: Seattle District provides 6,000 sandbags to Boundary County for the Eastport sandbagging operations. Both the City of Bonners Ferry and Boundary County are concerned about the reliability of their levees along the Kootenai River. Seattle District is considering deploying additional flood team members to the Kootenai River basin.

May 19<sup>th</sup>: The City of Bonners Ferry issued a formal disaster declaration and requested direct flood response assistance with emergency repairs to the right bank levee with the city. The levee was eroding quickly and was in danger and failing. If the levee breached completely, flood water would enter the Bonners Ferry community on the right bank and flood homes, roads, and utilities at depths up to 8 feet. The City's waste water treatment facility access road would be flooded and the plant would not be able to function. The Acting District Commander, LTC. Leighow declared a flood emergency and the EOC requested additional funding from NWD. Contracting utilized expedited procurement procedures to contract for heavy equipment and to purchase the materials required for the emergency levee repairs. The plan was to place large riprap along the toe of the eroding levee to prevent additional erosion. The estimated length of the repair was 400 linear feet. The field construction crew began improving the access road late in the afternoon. The total number of personnel supporting the field operations was 6.

The City and County also asked for additional technical assistance.

The Corps field team looked at Scott and Linda Pearson's house on County Route 18 past the U.S. Fish and Wildlife Service Refuge on the left bank. Their house is built into the levee and they were asking what to do since the water was coming up. The field team recommended flood proofing techniques for their home. The Corps mentioned to the Pearson's that the access road would need to be raised to allow access.

At Eastport, the flood team met with Clint Belyea at his home on the Moyie River. He had placed sandbags along the bank to keep the river out of his home. A debris pile located approximately 100 feet downstream of his house was increasing the flood stages at his property. The government housing site was in good condition with no over bank flows at this time.

May 20<sup>th</sup>: The field construction crew began placing riprap along the toe of the damaged right bank levee in Bonners Ferry starting at 0700. City crews removed jersey barriers and were assisting with the removal of debris and vegetation that was hindering the rock placement. The field team placed approx. 1,700 tons of riprap along 75 linear feet.

The flood team also returned to Eastport and assisted local home owners with sandbagging their homes. The team was also assisting Boundary County with levee patrols in the drainage districts.

May 21<sup>st</sup>: The emergency repairs continued at the right bank levee. Additional erosion is occurring along the levee downstream? of the initial work area and the estimated length of the repair project is now 450 linear feet.

May 22<sup>nd</sup>: The field team has now placed 3,000 tons of riprap along the right bank levee. The emergency repairs are anticipated being completed on May 24<sup>th</sup>. Erosion is continuing along the levees downstream of Bonners Ferry and the Corps flood team is assisting the drainage districts with levee patrols and technical assistance. The Fodge Mill levee upstream of Bonners Ferry breached and flood water has cut off several access roads. Boundary County crews are continuing to sandbag at the Fodge Mill site.

May 23<sup>rd</sup>: The emergency crews have completed 400 linear feet of repairs along the right bank levee. They have placed 3,500 tons of riprap. Total expenditures at the emergency levee repair is just over \$216,000. Technical assistance is continuing throughout Boundary County.

May 24<sup>th</sup>: Additional erosion and levee rotational failures downstream? of the levee repair areas have pushed the estimated completion date out until May 27<sup>th</sup>. The field construction crew has now placed rock along 500 linear feet of the levee.

May 25<sup>th</sup>: The emergency repairs continued on the right bank levee. The flood team is also continuing to monitor the downstream levees and the Burlington Northern Railroad upstream of Bonners Ferry.

May 26<sup>th</sup>: Areas of the right bank levee outside of the repair area continue to erode and the new completion date for the emergency repairs is now May 31<sup>st</sup>.

May 27<sup>th</sup>: Trees have been falling in on the left bank levee and the City of Bonners Ferry is removing brush from the levee. The emergency repairs are continuing on the right bank levee.

May 28<sup>th</sup>: The field construction crew has now placed 13,633 tons of riprap. The flood team patrolled the levees both by car and by boat.

May 29<sup>th</sup>: The field construction crew has now completed over 700 lineal feet of levee stabilization. The work is expected to be completed by May 31<sup>st</sup>.

May 30<sup>th</sup>: A large portion of the riprap placed during the emergency response failed. The crews go back to repair the failed area.

May 31<sup>st</sup>: The emergency repairs of the right bank levee are completed. There are still areas along the levee that need work, but the river stages have receded to a point where there is no longer a threat of overbank flooding.

June 1<sup>st</sup>: The flood team returns back to Seattle and the Libby project office.

June 8<sup>th</sup>: Kootenai river stages at Bonners Ferry are predicted [by whom?] to be 2' above flood stage. The flood team is deployed back to Bonners Ferry and Boundary County has requested 25,000 sandbags for protection of the casino. The City of Bonners Ferry is assembling sandbag crews for filling and placing bags throughout the City.

Lincoln County, Montana has also requested sandbags and technical assistance. Part of the Kootenai river flood team is assisting the Lincoln County with flood preparedness activities and providing technical assistance to property owners.

June 9<sup>th</sup>: Boundary County and the City of Bonners Ferry again request emergency flood response assistance. Governor Risch of the state of Idaho declared a state of emergency and toured the Boundary County area with the Corps flood team. The field crews are preparing to begin work again on the right bank levee in Bonners Ferry to protect the levee toe from erosion??. The Montana flood team is working with Lincoln County at several locations in Troy and Libby. Most of the sandbagging is occurring at private residences.

June 10<sup>th</sup>: The field crews begin placement of riprap along the toe of the right bank levee. The erosion is close to the sewage treatment facility and failure of the levee will cut off access to the facility as well as flood the homes in the community behind the levee. Failure of the levee would also result in a broken above ground sewer line, which is the main sewer line to the treatment plant. This would result in release of raw sewage into the flood water. Boundary County decided to begin placing the sandbag revetment to protect the casino when the Kootenai river stages reach 1765 on the Bonners Ferry gage. The sand and sandbags are staged in the Casino parking lot.

June 11<sup>th</sup>: The emergency repairs of the right bank levee continued. The field crews were placing approximately 3,000 tons of riprap per day.

June 12<sup>th</sup>: The Corps provided additional sandbags to both Lincoln County and Boundary County. We have now provided 50,000 sandbags to Boundary County and 20,000 to Lincoln County. The emergency repairs to the right bank levee are continuing. The field team has placed approximately 420 lineal feet of erosion protection.

June 13<sup>th</sup>: LTC Leighow arrived at Bonners Ferry via helicopter to meet with the local stakeholders and the Corps flood team and to assess the flood conditions. The field team is continuing to place riprap along the right bank levee.

June 14<sup>th</sup> and 15<sup>th</sup>: The field team assisted both Lincoln County and Boundary County with technical assistance throughout the basin. The construction crew also continued placing riprap along the right bank levee.

June 16<sup>th</sup>: The emergency repair work is anticipated to be complete on June 17<sup>th</sup>. The riprap is holding up well in the high river stages.

June 17<sup>th</sup>: Lincoln County declares a state of emergency and asks for continued assistance from the Corps. In Boundary County the flood team is assisting with the sandbag revetment at the casino and working with County and city staff to patrol the levees and monitor potential weak areas. The rock work on the right bank levee is also continuing through the end of the day.

June 18<sup>th</sup>: The sandbag revetment at the casino is in place. The emergency repairs on the right bank levee are complete. The flood team is assisting both Lincoln and Boundary County with levee patrols and monitoring of weak areas.

June 19<sup>th</sup>: Early morning, the cross levee broke and water covered the access road to a few residences and businesses near the Fodge Mill site. The County and State were placing large riprap to try and bridge the breach and called the Corps in for assistance. Once the water became too deep on the road, they quit hauling material, about 0230. In the morning, the Corps flood team placed quarry spalls at the Fodge Mill site in order to maintain access for residences. The team also placed riprap on the left bank levee where a large tree dislodged and left a hole in the bank armor.

June 20<sup>th</sup>, and 21<sup>st</sup>, The flood team continues to provide technical assistance to Lincoln and Boundary County.

June 22<sup>nd</sup> : The flood team is monitoring the levees for potential draw down failures and the water recedes. The team is anticipating returning to Seattle and Libby project office by June 23<sup>rd</sup>.

June 23<sup>rd</sup>: The flood team is assisting Boundary County and the State of Idaho with initial damage assessments. Initial assessments completed by the Corps and County estimate approximately 54 miles of river bank and levee damage.

June 28<sup>th</sup>: The flood team has returned and the EOC completes the final situation report.

A total of 35 Sitreps plus field reports can be found in Appendix G.