Property Damage

How will we be compensated for impact on property values?
While the cause of the incident is being investigated and the responsible party being determined, AMEC Environment & Infrastructure, Inc.’s (AMEC’s) insurance company, Zurich North America (Zurich) and their independent claims adjuster, Crawford & Company, have been compiling assessments of damages to buildings and contents to determine what each homeowner is entitled to recover under Michigan law.

Is there a time limit for finalizing claims?
If you have questions regarding a claim, please contact Zurich and their claims adjuster, Crawford & Company.

What is the status of private bridge and private road repair?
If you have questions regarding a claim regarding a private bridge or a private road repair, please contact Zurich’s claims adjuster, Crawford & Company, at 855-243-8636. Please refer to claim #9240084847.

Investigation

Are the blueprints of the temporary dewatering structure (TDS) available for public inspection?
Design drawings for the alternate TDS are available on the projects’ web site, in the Archives section under “Engineering and Permitting Documents.”

Will there be an Environmental Impact Study, following the October 6th Incident at Brown Bridge Dam?
The City of Traverse City and the Boardman River Dams Settlement Agreement Implementation Team (IT) are working in collaboration with the Michigan Department of Environmental Quality (MDEQ) and the Michigan Department of Natural Resources (MDNR) regarding the October 6th incident to determine appropriate actions.

Flooding

How can the statement be made “neither removal of dams nor October 6th incident has increased the risk of flooding in the future?”
The dams on the Boardman River were not designed or operated for flood control purposes. The amount of water that flowed into the Brown Bridge impoundment was approximately equal to the amount of water that flowed out of the impoundment. However, flood hazard existed because of aging structure(s) that could potentially fail. The removal of the dam actually reduced the risks of flooding because the potential for a dam failure was eliminated.

Has the floodplain changed?
The removal of Brown Bridge Dam did not affect the volume of water conveyed and, as determined by detailed modeling investigations, peak flood flow rates are only potentially impacted a very small amount. The small potential impact, which might be plus or minus, depends on assumptions regarding operation of the former powerhouse water control gates.
The City of Traverse City / Grand Traverse County staff has stated that the structure was never operated such that there was significant storage of flood water and, therefore, there was no significant impact on downstream peak flood flow rates.

**What studies and modeling have been completed with respect to flooding, and are these studies available to the public?**
Flooding and hydrology assessments were completed as part of the Environmental Assessment required by permitting process for the removal of Brown Bridge Dam. This information is available at the project web site, in the Archives section under “Engineering and Permitting Documents.” [http://www.theboardman.org/archived-documents/engineering-documents.html](http://www.theboardman.org/archived-documents/engineering-documents.html)

**Fish and Wildlife**

**What is the status of studies on the impact on fish and wildlife following the October 6th incident?**
The City of Traverse City submitted a summary of assessments completed to date on December 20, 2012 to the MDEQ which included a summary of the fish kill assessments performed by AMEC, the Grand Traverse Band of Ottawa and Chippewa Indians (with assistance from Trout Unlimited) and the MDNR. This information is available at the project’s web site, in the Archives section under “Engineering and Permitting Documents.” [http://www.theboardman.org/archived-documents/engineering-documents.html](http://www.theboardman.org/archived-documents/engineering-documents.html). As additional assessment and/or studies are completed, this information will also be posted on the project’s web site.

**Who is doing the review?**
Fish and wildlife assessments were or will be conducted by the MDNR, Grand Traverse Band of Ottawa and Chippewa Indians, Trout Unlimited and others as referenced above. The results of the fish assessments are being reviewed by the MDNR and the MDEQ.

**Are trout the only fish that are important on the Boardman system? Is seems that some species are being eliminated with changes in river profile.**
The Boardman’s rich history and status as a cold-water fishery requires emphasis on the trout population during this project. As the Boardman River returns to a fast running, cold-water stream, non-native, warm water species from the impoundment (bass, sunfish, etc) will not be able to survive in this environment.

**River Quality**

**What is the status of turbidity in the river, and when can the river be expected to clear?**
Turbidity in general is regarded as a short-term impact associated with dam removal. Short-term impacts or their consequences vary, but are generally accepted as reversible if managed correctly during the removal process. Following the end of major construction (beginning of January 2013), the channel will continue to adjust in the former impoundment area. Higher than normal turbidity levels may occur during a natural flood event. At normal flows the river will run clear as it did prior to the removal of the dam.

**What is the status of testing for arsenic, and is there a plan for remediation?**
In order to obtain a permit for dam removal, extensive sampling of the proposed excavated sediments was collected and analyzed for metals including arsenic. Based on the levels of compounds detected in the sediment samples (which included arsenic), the material was allowed to remain on the project site above the 100-year floodplain elevation. Once the
project is complete, the City of Traverse City is required to notify the MDEQ's Remediation and Redevelopment Division to discuss the necessity to collect any additional samples. The MDEQ has recently modified the Part 201 background levels which includes a new arsenic background level range of 470 to 27,700 micrograms per kilogram (µg/kg), up from 5,800 µg/kg.

Is monitoring of turbidity being tested on a daily basis and are the levels within reasonable levels?

Yes, monitoring of turbidity is being done on a daily basis at two locations on the Boardman River. The locations are just upstream of Brown Bridge road crossing and approximately half way between Keystone and Garfield roads. A river Secchi disc measurement tube is being used to establish trends in turbidity. The trends displayed are as expected for the deconstruction process and with the in-channel excavation recently completed the turbidity levels are at expected acceptable levels. It is important to remember that fluctuations in turbidity levels will be encountered as the channel in the project area continues to adjust in it’s new-found relic location. Monitoring of turbidity and channel morphology will continue through 2013 and beyond.

What sediment transport studies of the river exist? Is there a guarantee that Boardman Lake and Grand Traverse Bay won’t be subjected to a high level of sedimentation with the removal of the three dams?

The removal of Brown Bridge Dam did not include sediment transport modeling, but it did include sediment management activities which included the removal of approximately 260,000 cubic yards of sediment from the impoundment upstream of the dam, in particular in the delta area where thousands of cubic yards of sediment settled out once the dam was constructed in 1921. Pre-design studies were performed to determine the location of the former river channel and to estimate sediment volumes in order to finalize the design drawings for restoration purposes (e.g., removal of sediment and construction of a floodplain). The details of the design plans and specifications are provided on the project’s web site, in the Archives section under “Engineering and Permitting Documents.”


Project

Are copies of IT’s technical reports available?
IT technical reports and other project documents are available at the project website, www.theboardman.org, in the Archives section.

How will the October 6th incident impact the project moving forward in the long-term?
Planning for the removal of Boardman and Sabin Dams and modification of Union Street Dam continues. Implementation of these projects is dependent on available funding. The project team will use the knowledge gained from the Brown Bridge Dam removal to inform these projects, and help to ensure that they are completed safely and efficiently.

What happened to the generating equipment at Brown Bridge Dam (generators, panels, controls, etc)?
Equipment removed from the former Brown Bridge Dam powerhouse structure was disposed of as scrap material or disposed of as required by local, state and federal laws.