

The Benefit Process

The District contracted with Jack Faucett and Associates to perform the economic benefit analysis for the Readjustment of Appraisal of Benefits study. Jack Faucett teamed with Stantec Engineering to provide Hydrologic and Hydraulic Modeling analysis to determine the impact on the community without the dams. A benefit cost analysis was performed to evaluate the benefits achieved compared to the cost of needed maintenance and modifications.

Without getting into a lot of detail, the economist inventories all the structures and land-use within the flood plain. Structural damage costs for the area without the dams in place and then with the dams in place are estimated using the United States Army Corp of Engineers Hydrologic Engineering Center Flood Damage Analysis Model (HEC-FDA).

This computerized study provides the value of damage avoided with the dams in place. It also provides the value for other benefits such as:

Transportation Impacts, Emergency Response Costs, National Flood Insurance Program Administration Impacts, Business Losses, Business Cleanup Costs, Business Emergency Preparation Costs, Agricultural Losses, and Environment Impacts.

Needless to say, the process is very involved, requiring specialized skills. From this study the value of benefits received for those properties impacted by the potential flooding (Direct Benefits) are calculated. It is recognized that everyone within the watershed receives indirect benefits related to the items mentioned earlier such as the impacts from roads closed, bridges and culverts washed out, lack of emergency services, loss of business, and overall quality of life impacts due to repeated flooding.