

## TR-72

### Net Benefits to Agriculture from the Trinity River Project, Texas

B. Fish, G Williford, H. Elling, R. D. Lacewell, P Hosch, W Griffin, D. L. Reddell, E. A. Hiler, W. Bausch

- [Full Text](#)

The purpose of this study was to estimate the agricultural benefits due to flood protection provided by the proposed Trinity River Project. The area examined was the land located between the 100-year flood plain with the project and without the project. Benefits of the project were defined as reduced flood damages on current land uses and alternatively as increased net returns assuming a shift to a profit maximizing land use with flood protection provided.

Annual flood damages were calculated by applying published seasonal flood damage factors and flood frequency as developed from a producer survey to annual gross returns. Annual net benefits were calculated as net returns with flood protection less net returns without flood protection. The reduction in net returns without flood protection represented annual flood damages with a constant land use assumption. The two estimates of flood protection benefits were developed for evaluation reaches 1 through 6 separately as well as on an aggregate basis.

Total annual net benefits of the Trinity River Project were \$676,392.43 assuming current land use and \$4,579,688.55 assuming profit maximizing land use after flood protection. These benefits were capitalized to a present value using interest rates of 3 1/4% and 9%. Under current land use the total benefits were \$20,812,074 at 3 1/4% and \$7,515,471 at 9%. Similarity flood protection benefits were \$140,913,493 and \$50,885,429 respectively assuming the profit maximizing land use. Applying regional income multipliers, the increased annual household income was \$2,171,796.66 assuming current land use and \$12,163,887.68 assuming all land in the profit maximizing enterprise. The capitalized values of the regional impact were \$66,824,513 and \$24,131,075 under current land use, and \$374,273,469 and \$135,154,308 under profit maximizing land use at 3 1/4% and 9% respectively.

1500 Research Parkway A110  
2260 TAMU  
College Station, TX 77843-2260

Phone:  
979.845.1851  
Fax: 979.845.0662

working together to foster and communicate research and educational  
outreach programs focused on water and natural resources science and  
management issues in Texas and beyond.

Email:  
[twri@tamu.edu](mailto:twri@tamu.edu)



[Compact with Texans](#) | [Privacy and Security](#) | [Accessibility Policy](#) | [State Link Policy](#) | [Statewide Search](#) | [Plug-ins](#) | [Veterans Benefits](#)  
[Military Families](#) | [Texas Homeland Security](#) | [Open Records/Public Information](#) | [Equal Opportunity Statement](#) | [Risk, Fraud & Misconduct Hotline](#)

© 2013 All rights reserved. Problem with this page? Contact: [twri-webmaster@tamu.edu](mailto:twri-webmaster@tamu.edu)



[SSO](#) |

[CANOPY](#)