

OMR&R: Concrete Repair and Rehabilitation



OMR&R: Pump Maintenance, Repair and Replacement



OMR&R: Erosion Repair and Rehabilitation



OMR&R: High Water Operation

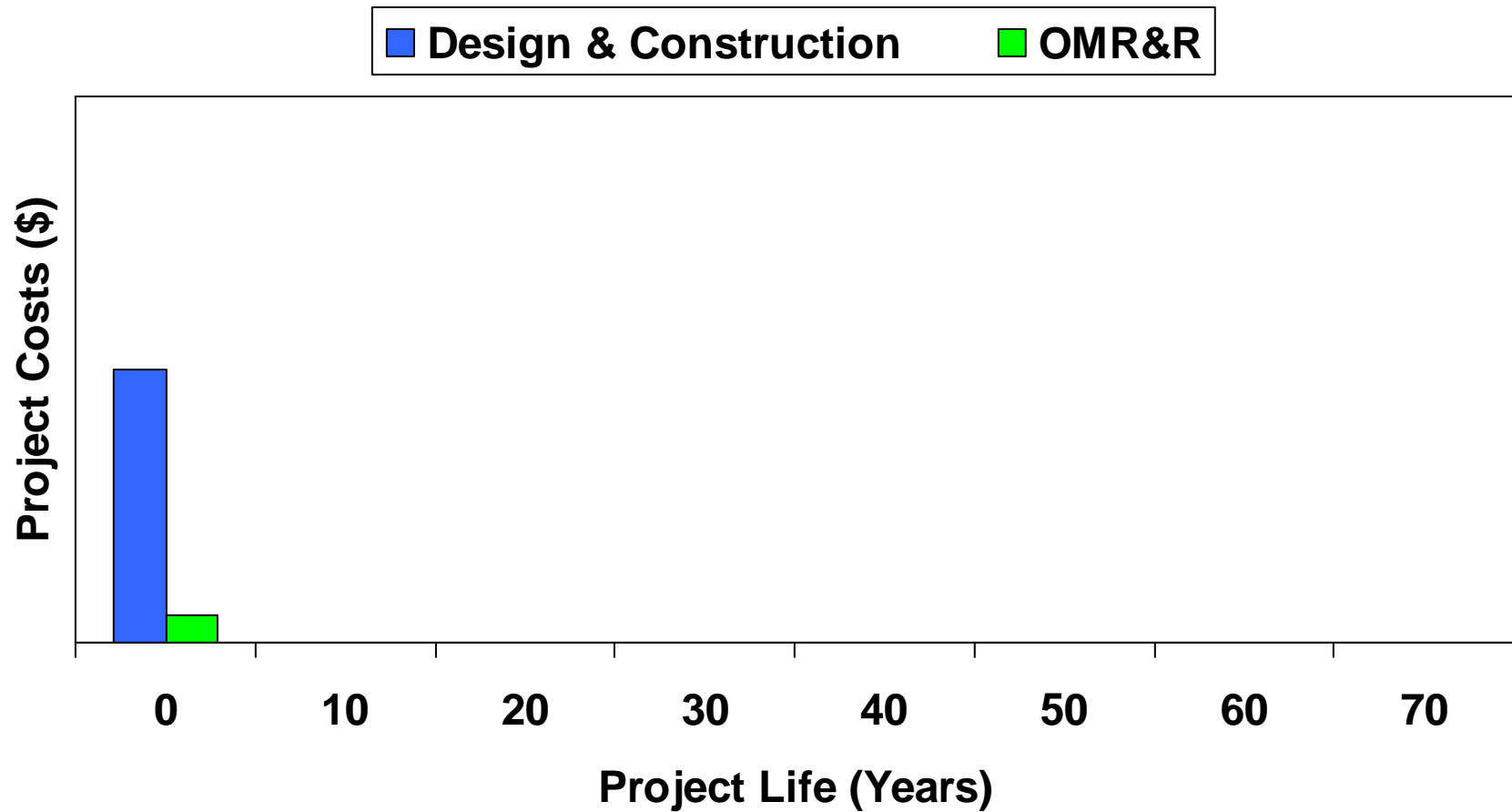


OMR&R: High Water Operation

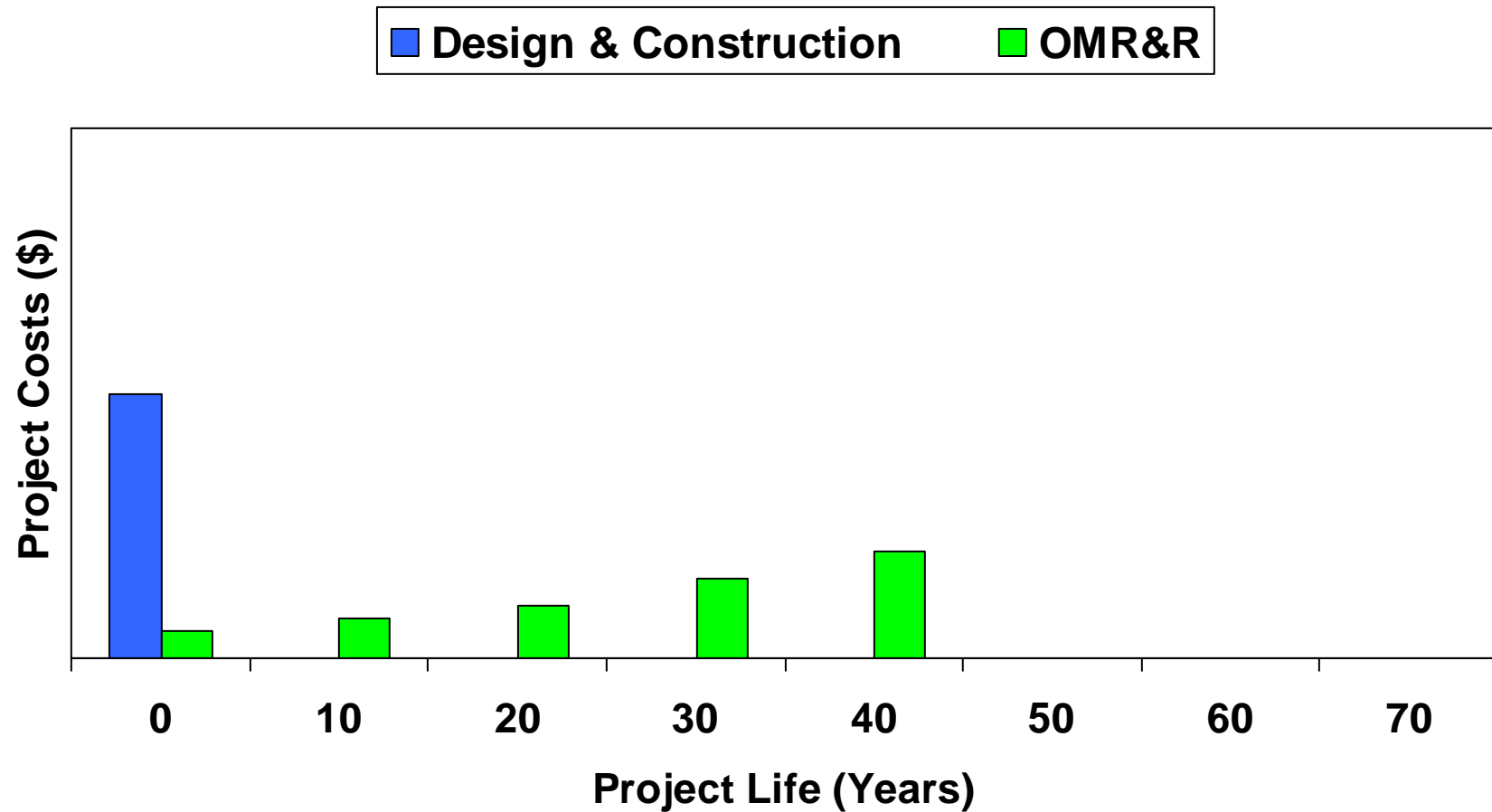
AUTO
PARTS



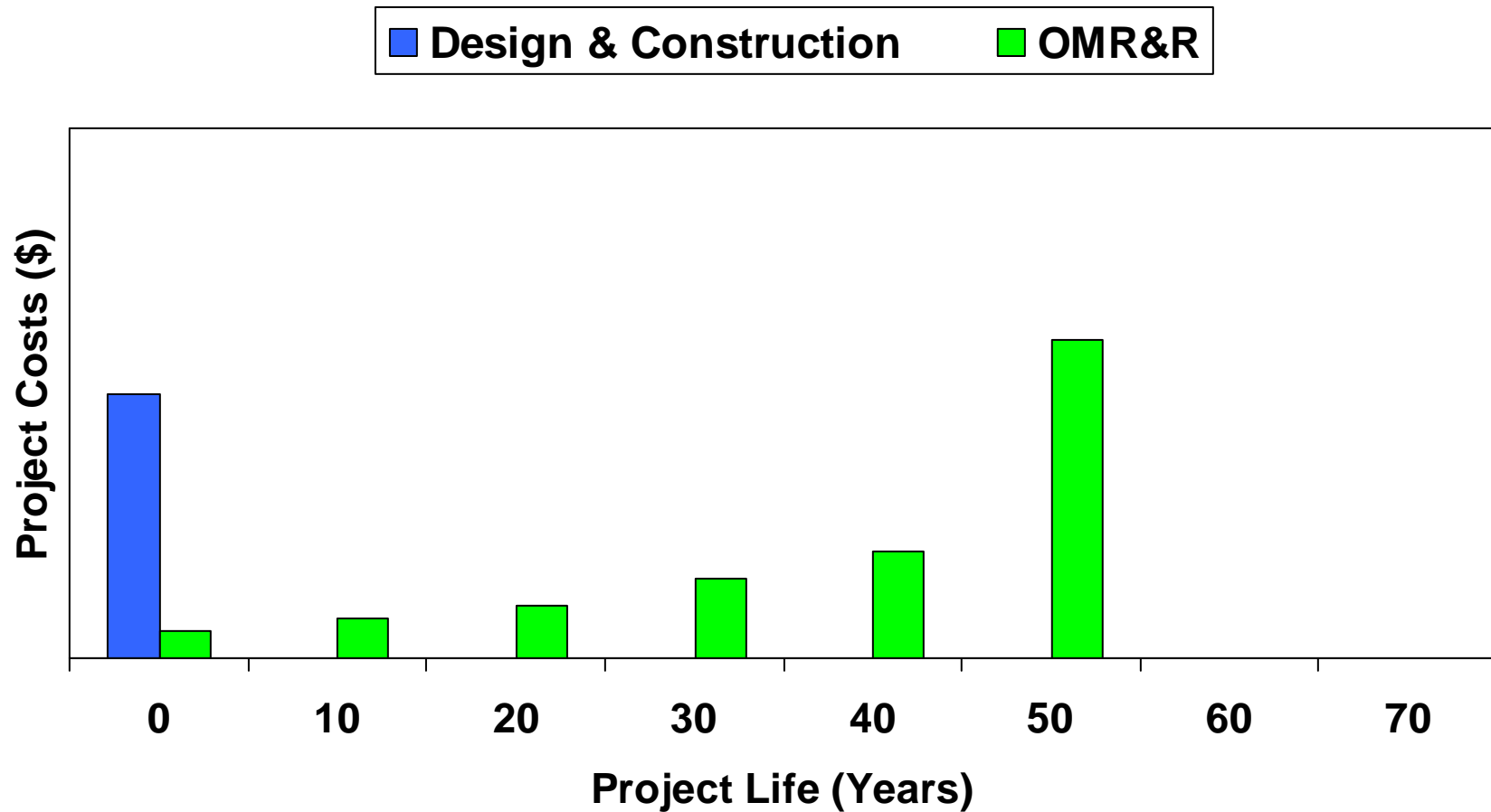
Typical Project Lifecycle Costs



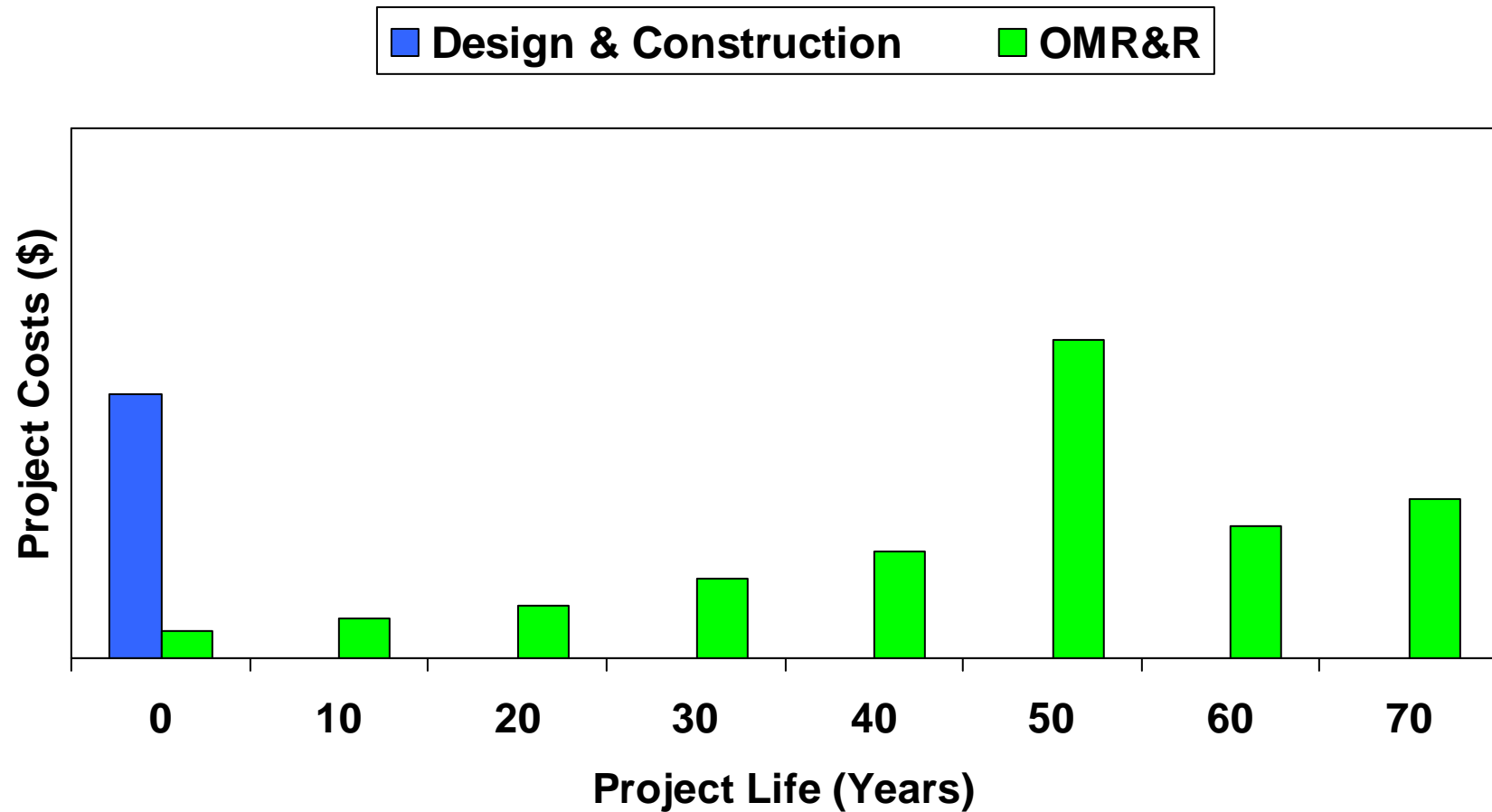
Typical Project Lifecycle Costs



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Typical Project Lifecycle Costs



Residual Risk: Internal Drainage



Residual Risk: Design Exceeded





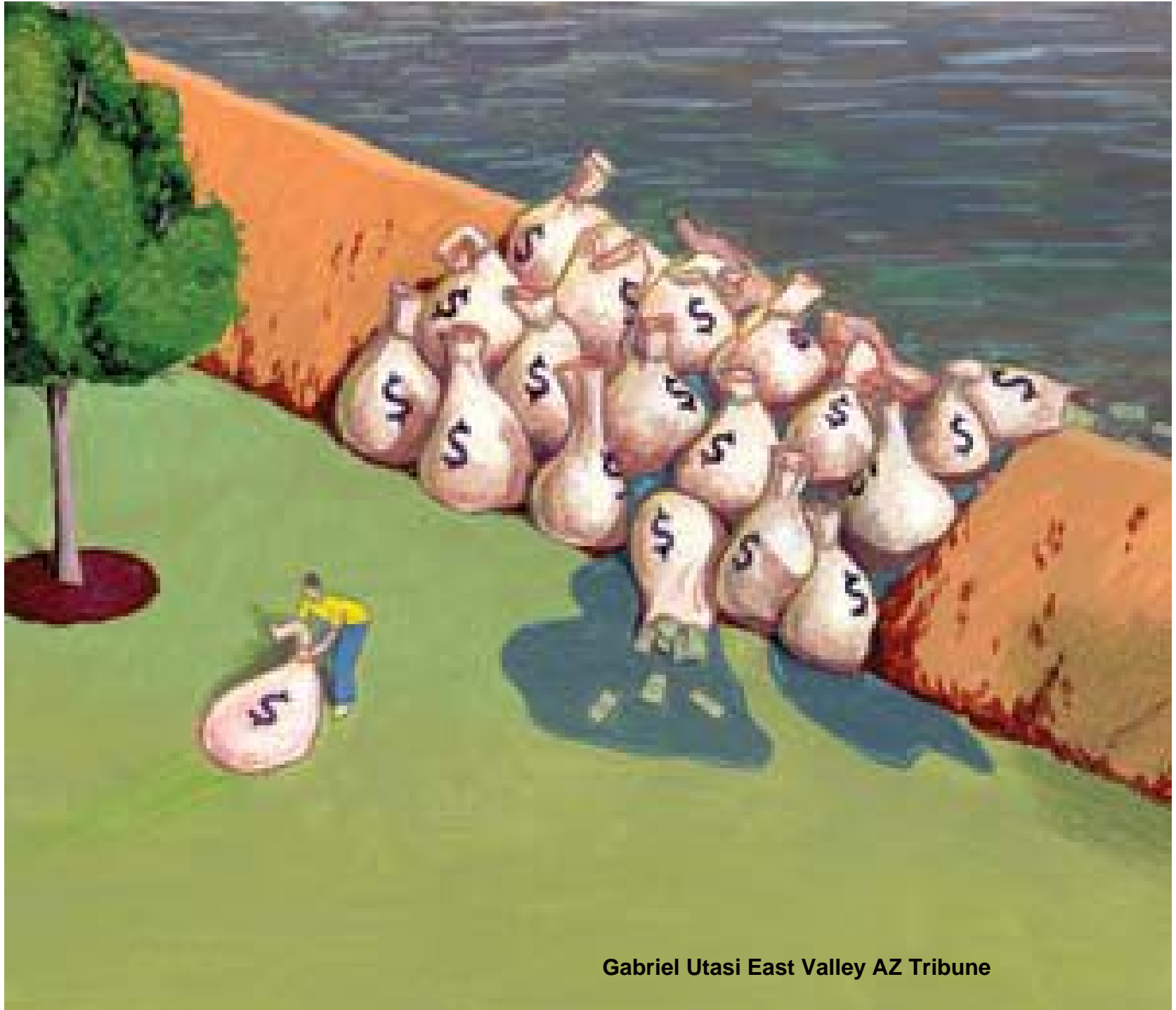


Residual Risk: Failure

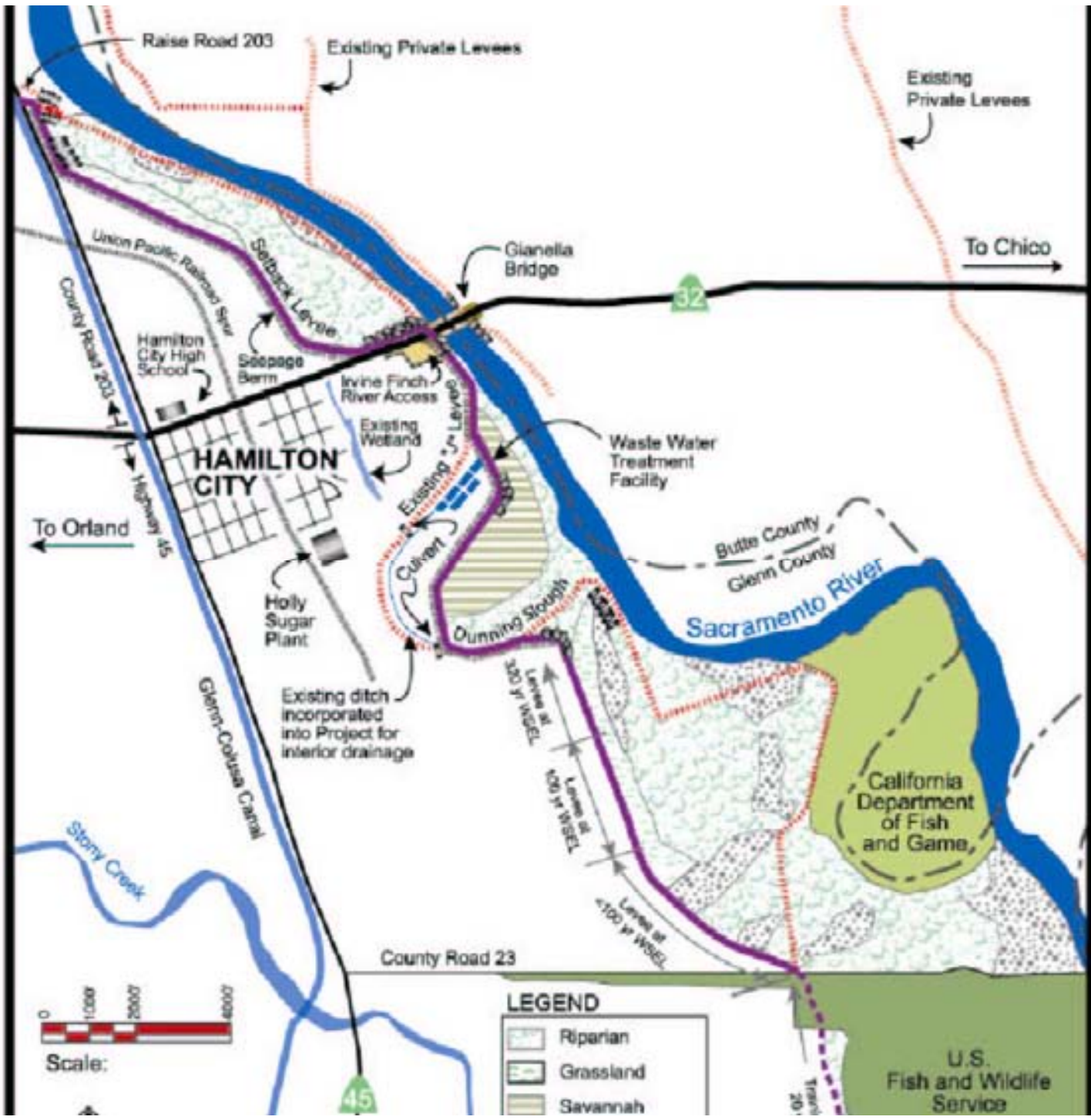


Levees only reduce the risk to individuals and structures behind them. They do not eliminate the risk.





Gabriel Utasi East Valley AZ Tribune



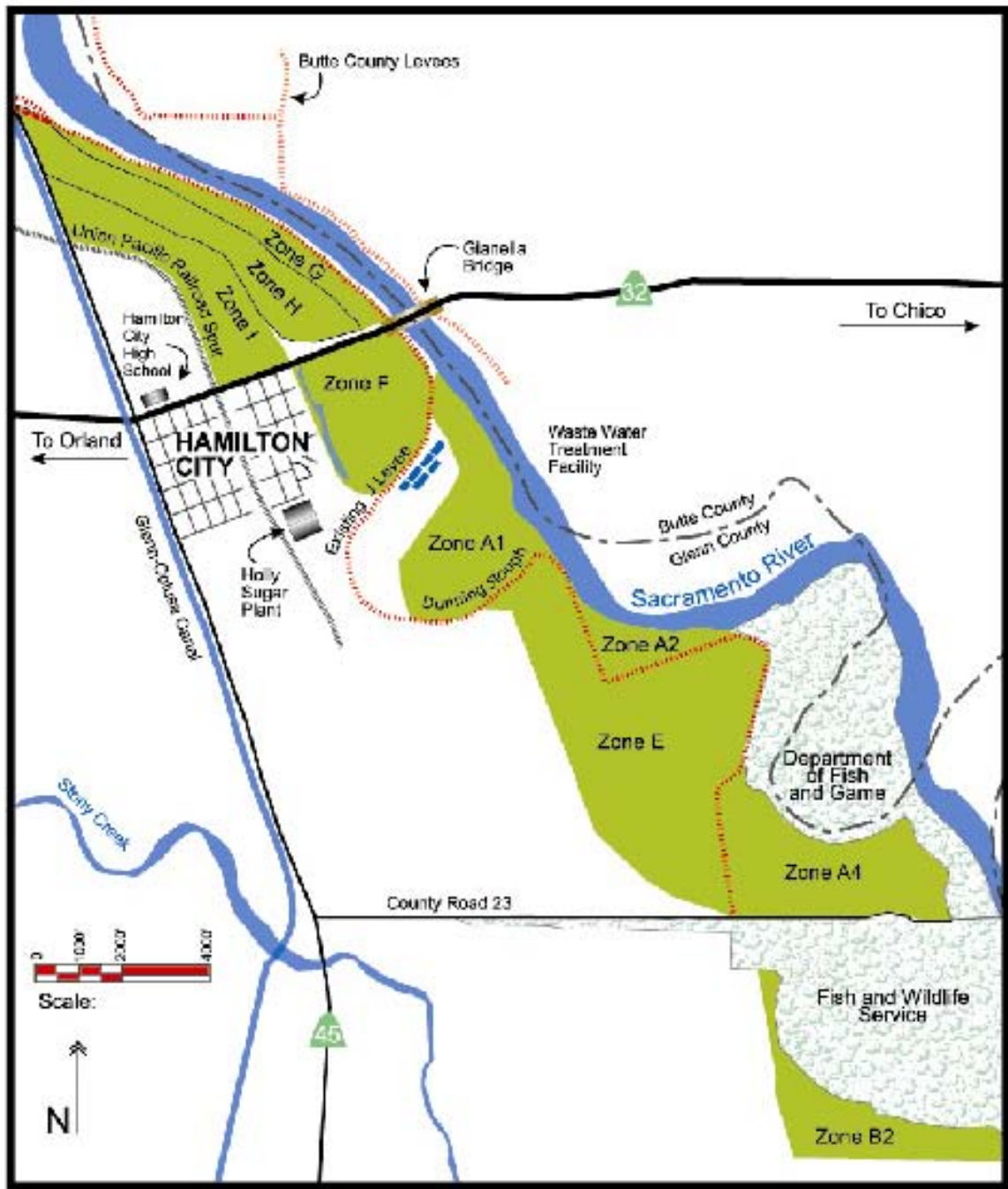


Figure 3-1: Restoration Zones Map

application for assessing the potential effects of ecosystem restoration projects and was subsequently not used.

TABLE S-3: ECONOMIC COSTS AND BENEFITS OF RECOMMENDED PLAN¹ (\$1,000)

Item	FDR		Ecosystem		Total Costs	
	Allocated Costs	Benefits	Allocated Costs	Benefits	Allocated Costs	Benefits
Investment Cost						
First Cost ²	4,260		40,446		44,706	
Interest During Construction	271 ⁴		3,066 ⁵		3,337 ⁵	
Total	4,531		43,512		48,043	
Annual Cost						
Interest and Amortization	272		2,615		2,887	
OMRR&R ³	47 ⁶		8		55	
Subtotal	319		2,623		2,942	
Annual Benefits						
Monetary (FDR)		577				577
Non-monetary (Ecosystem)				888 AAHU's		888 AAHU's
Net Annual FDR Benefits		258				258
FDR Benefit-Cost Ratio		1.8 to 1				1.8 to 1

¹Based on October 2003 price levels, 5 5/8 percent rate of interest, and a 50-year period of analysis.

²Excludes Cultural Resource Preservation.

³Operation, Maintenance, Repair, Replacement, and Rehabilitation

⁴Two year period of construction assumed for J levee removal and construction of setback levee

⁵Three year period construction assumed for overall project

⁶Excludes environmental O&M costs.

TABLE S-4: SUMMARY OF COST SHARING RESPONSIBILITIES