INLAND NAVIGATION ECONOMICS WEBINAR SERIES
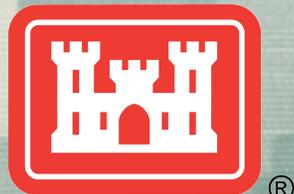# Summary Series Wrap-up

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Huntington District

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US Army Corps of Engineers
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Inland Navigation Webinar

1. Primary focus was on how to calculate inland navigation benefits.

2. Inland navigation project costs are equally important, but not developed by the pcx.

3. Economics, which is comparison of benefits and costs, is the ultimate objective.

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1st: What is economics?

- Economics is the comparison of benefits and costs to determine if construction or some other action is feasible to implement.

2nd: Inland Navigation Economics

- What is it?

- What is it used for?

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What is it?

- Inland navigation economics is the comparison of the benefits provided by the inland navigation system compared to the cost of providing the system.

What is it used for?

- Inland navigation economics is used to determine if actions such as construction of a lock or rehabilitation are feasible investment decisions.

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Inland Navigation Benefits

- The savings in transportation costs for traffic moving on the waterway system compared to the least cost all overland transportation mode (like rail or truck).

Inland Navigation Costs

- All of the costs of life-cycle costs associated with providing a navigation system – construction, operation, maintenance, rehabilitation.

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Inland Navigation Benefits

- At its most simple:

    Benefits = tons x savings/ton

- Savings/ton = Overland transportation cost per ton – waterway transportation cost per ton.

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Inland Navigation Benefits Data

1.0 Waterborne commerce statistics – yearly shipments collected by Corps from industry.

2.0 LPMS –towboat/barge oriented data collected by the Corps at each lock project.

3.0 Vessel operating costs – computed by Corps.

4.0 Traffic projections – developed by Corps based on analysis of key industries.

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Main Inland Navigation Models

1. Navigation investment model – computerized depiction of waterway system in terms of the location of locks, fleeting points, distances between points, etc.

2. Waterway analysis model – simulation model of the operation of a specific lock to determine capacity.

3. Barge costing model – model to determine the cost of transporting commodities between specific points on the waterway system.

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Inland Navigation Costs

Life-Cycle costs of constructing and operating the inland system

1. Construction costs.

2. Operation and maintenance costs.

3. Repair/rehabilitation costs.

Inland Navigation – Typical Problems

1. Small lock chambers which cause delays.
2. Sedimentation which restricts the amount of cargo that can be loaded into barges.
3. Lock closures due to deteriorated equipment.

Economics

- Project is economical if life-cycle benefits are greater than the life-cycle costs.

- Economics is an important determinant in deciding on future actions.

Economic Measures

1. NED plan – the plan where benefits exceed the costs by the greatest absolute amount.

2. BCR – the ratio by which benefits exceed costs.

3. RBRCR – the ratio by which the remaining benefits exceed the remaining costs (after PED into CG).

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Summary

1. Inland navigation economics – comparison of benefits to costs.

2. Inland navigation benefits – cost savings for waterway shipping compared to least cost all overland shipping.

3. Inland navigation costs – life cycle costs of constructing, operating, and maintaining the waterway system.

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Questions

We are open to questions on today's presentation or any other presentations in the webinar series.

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Thanks for Joining us

1. Send us your comments or questions.
2. Send us your assessment of the webinar series.
3. Send us areas of interest to you that were not covered.

Send to Justin Carlson in Huntington

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