Timely Preservation Performed Today…

Better Bridge Infrastructure Tomorrow.

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PRESERVATION

What is Preservation?

- All activities that help to realize or exceed design life
- Question: what is the difference between maintenance and preservation?
- Maintenance: proactive & reactive; Preservation: proactive, ***both are necessary***
- Patching – reactive / Washing – proactive

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PRESERVATION

What is Preservation?

- Preservation is not…
  - Reactive (emergency repair)
  - Structural (structural improvement)
  - Operational (widening)
- **Philosophical shift**
- From “reactive putting out fires” to “proactive planning for tomorrow’s problems”

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PROBLEMS

What are the Problems?

- Early replacements
  - Decks replaced in 25 to 35 years
  - Substructures replaced in 40 to 50 years
- Design lives – 75 to 100 years
- Home replacement?

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PROBLEMS

What are the Problems?

- Rust never rests – even during economic downturn / funding decrease
- Structures built in 1950's and 1960's will need increasing attention
- *We have to do more with less*

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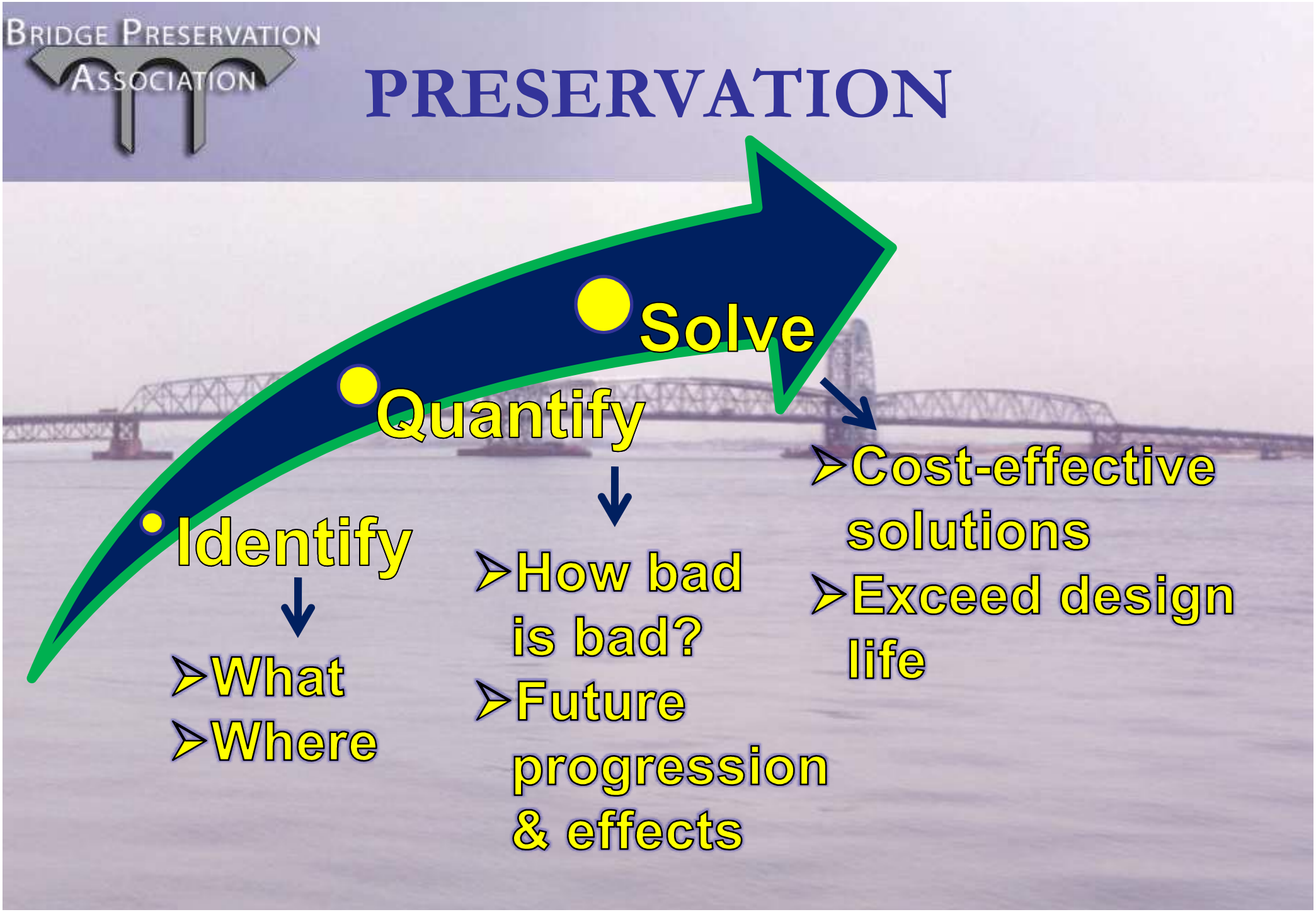
FUTURE PROBLEMS

What will we face?

- Currently – very expensive to replace
- Currently achieving only 50% of design life, thus doubling the cost
- Structure conditions going from bad to worse
- Increasing future tax burden due to the increasing number of assets to manage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PRESERVATION
Identify
➢What
➢Where
Quantify
➢How bad is bad?
➢Future progression & effects
Solve
➢Cost-effective solutions
➢Exceed design life

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SOLUTIONS

What are the Solutions?

- Be proactive – identify and quantify problems early using correct tools
- Every tool has its limits but can be very useful
  - NDT, rate of deterioration, other tests
- Deterioration is like cancer

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SOLUTIONS

What are the Solutions?

- The earlier we quantify the problem, the easier it is to solve
- Once problems are understood, our resources help you make decisions
- There is no “one size fits all” evaluation methodology or solution

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OBJECTIVES

To help provide answers

- <u>Overlay or Carbon Fiber</u> – may not the be solution if underlying corrosion delaminates the concrete
- <u>Corrosion protection</u> – not all types are appropriate for every problem
- <u>Power wash</u> – deck contaminated with chlorides:
  - May drive chlorides deeper into structure

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OBJECTIVES

What Do We Promote?

- <u>Exceeding</u> design life (increased service life)
- Tools necessary to quantify and solve given problems
- Documented evidence to promote best practices
- Life Cycle cost savings outweigh initial investments = Preservation

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OBJECTIVES

What Do We Promote?

- Education relating to preservation – best practices
- Doing more with less time, less funding
- $2M repair or $10M replacement?
  - Repair = $8M savings
  - Over 20 years at 5%= **$21M savings** (more than pays for repair)

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WHY BPA?

The BPA exists to:

- Provide a knowledge bank and forum for best practices, materials, and tools
- Seek active members to contribute and learn
- Develop best practices – what has worked, where, when, and how

DEVELOPMENT

What is the History of BPA?

- Concept: St. Louis (April, 2007)
- Roundtable: TRB 2008
  - FHWA, NCPP, FP^2, Agencies (Caltrans, VDOT, NCDOT, LA DOTD, NYSDOT)
- AASHTO Monterey - Rollout (July 2008)
- Supported TSP2 Development (2009-2010)
- NHI Webinar w/ FHWA, AASHTO, & BPA (2010)

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EXECUTIVE COMMITTEE

Name	Representing	Specialty
Mike Stenko	Transpo	Polymer concrete & overlays
Tom Donnelly	Transpo	Polymer concrete & overlays
Siva Venugopalan	SCS	Corrosion, NDT, materials, life extension
Lorella Angelini	BASF	Materials, chemicals, & products
Art Dinitz	Transpo	Polymer concrete & overlays
Ben Witter	SCS	Corrosion, NDT, materials, life extension
Sam Knaster	Ammann & Whitney	Architectural & engineering services

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GOALS

In 2011…

- Partner with TSP2, stay on the cutting edge
- Educate owners regarding best practices
- Become an objective resource for Preservation news
- Implement additional subcommittees, webinars, and education

CONTACT INFORMATION

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We welcome new members!

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