

National Bridge Deck Preservation Working Group

National Bridge Deck Preservation WG

- **Co-Chairs:**

- Sarah Sondag,
Minnesota DOT
- Pat Martens, Bridge
Preservation and
Inspection Services

Mission:

Promote development and adoption of best practices for bridge decks that extend the service life and demonstrate the value of preservation.

<https://tsp2bridge.pavementpreservation.org/national-working-groups/#Bridge%20Deck%20Preservation>

Deliverables

- **Bridge Product Database**

- <http://bridgeproductdb.com/>

- Overlays
 - Sealers
 - Patching Products

- **Concrete Bridge Deck Preservation Resource Guide**

- Introduction to bridge deck preservation activities
 - Compilation of relevant resources

Resource Guide

• Deck Preservation Actions

- Flushing/Washing
- Sealing
- Joint Maintenance
- Concrete Repair
- Overlays
- Other Actions

Bridge Deck Flushing and Washing

Description

Bridge deck flushing and washing are preventive maintenance activities performed to clear accumulated waste, debris and deicing chemicals. Deck washing consists of applying water at a low pressure, but high volume. The allowed will depend on agency environmental regulations.

Benefits

Deck flushing and washing reduces the potential for accumulation and infiltration of chlorides in the concrete bridge deck, which can lead to accelerated reinforcing steel corrosion and deck deterioration. These operations can also remove dirt and debris within expansion joints and drains, allowing those elements to function as intended. In addition, decks and joints that are free of debris are easier to inspect.

Best Practices

- Follow all state and federal environmental regulations, best management practices and time of year restrictions.
- Be aware of hazardous materials on the bridge that may require special procedures and Personal Protective Equipment (PPE) for the safety of the workers and the environment.
- Sweep and collect debris from the bridge deck within two weeks prior to operation.
- Consider flushing or washing other bridge elements, such as joints, drains, sidewalks, medians, curbs, barrier and parapet walls, abutment seats, back walls, bearing seats, bearings, pier columns in the splash zone, beam ends, end diaphragms and truss members in the splash zone with an emphasis on panel points, in order to more effectively preserve the life of the entire bridge.
- Perform flushing or washing on a cycle. Typical agency recommendations include flushing or washing every 1 to 2 years or as often as constraints allow.

Resources

- [A User's Guide to Bridge Cleaning](#)
- [AASHTO TC3 Training on Bridge Cleaning \(Item Code TC3MN037-19-T1, 1 PDH\)](#)
- [\(2013\) Standard Practice for Washing and Cleaning Concrete Bridge Decks and Substructure including Bridge Bearings and Expansion Joints to Prevent Structural Deterioration, Washington State Transportation Center](#)

Description

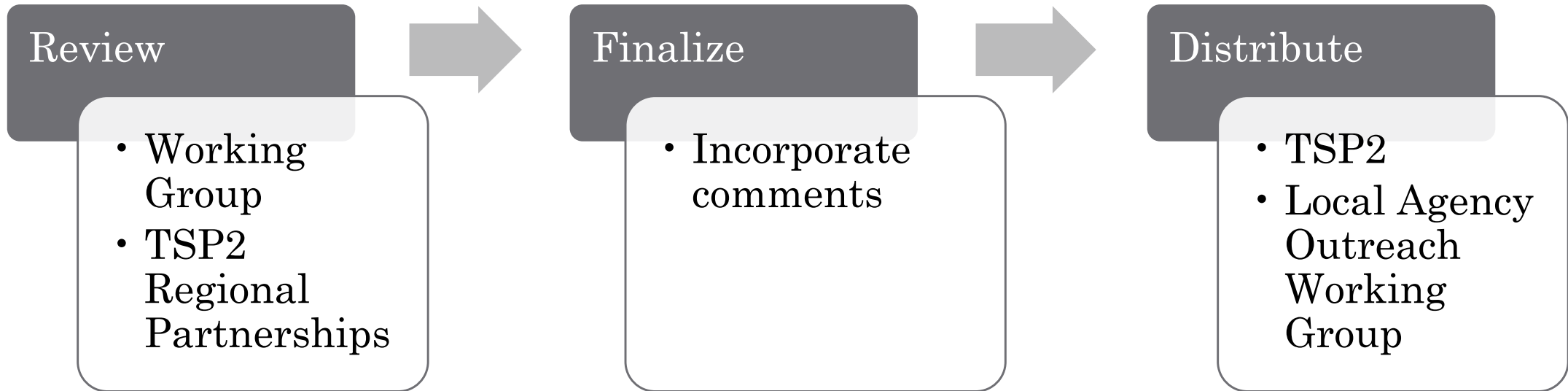
Benefits

Best Practices

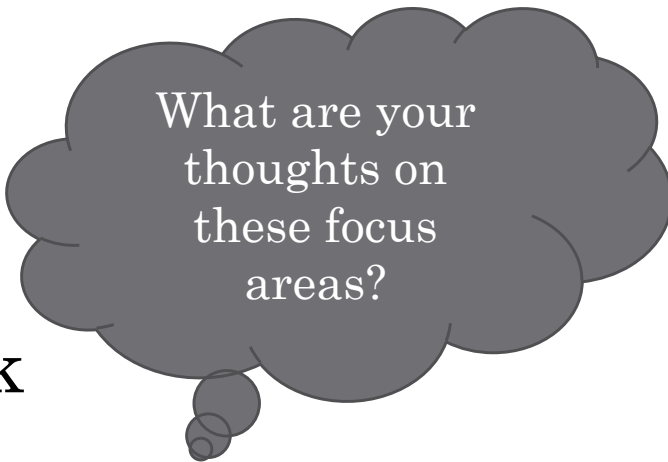
Resources

Resource Guide

- Next Steps



Focus Areas for 2021



What are your
thoughts on
these focus
areas?

- Advocate for a Synthesis of Bridge Deck Preservation Research
- Identify Triggers for Bridge Deck Preservation Actions
- Work with the Construction Quality Working Group
 - Identify and highlight Best Practices for Bridge Deck Preservation Activities
- Update the Resource Guide based on Outcomes