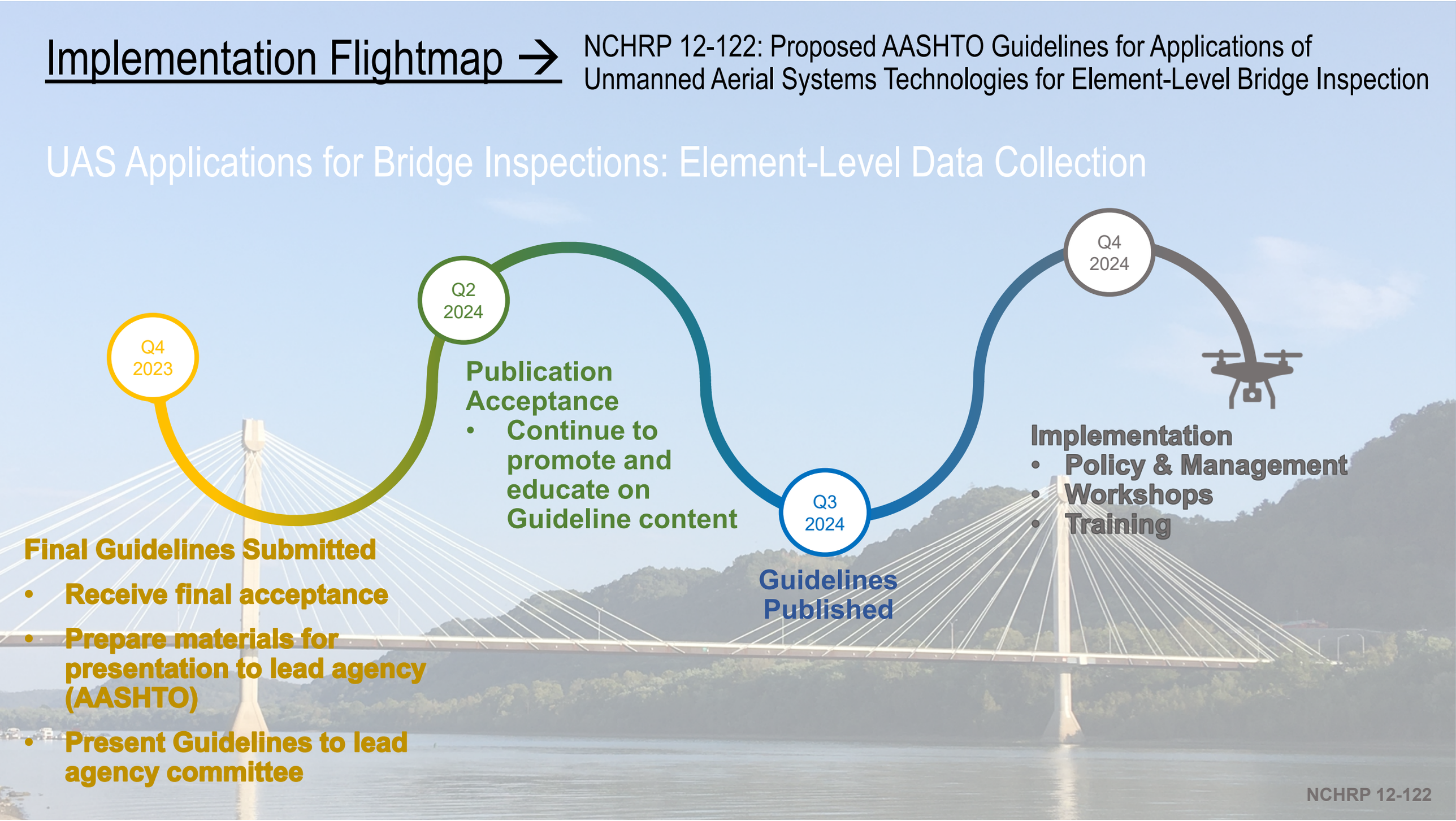
Implementation Flightmap →

NCHRP 12-122: Proposed AASHTO Guidelines for Applications of Unmanned Aerial Systems Technologies for Element-Level Bridge Inspection

UAS Applications for Bridge Inspections: Element-Level Data Collection



Implementation Steps → *Flying Forward with the AASHTO Guidelines*

UAS Applications for Bridge Inspections: Element-Level Data Collection

Where to Start?

- Organizational Structure
- Policy
- Program Management

UAS

- Selection Process
- Security Considerations
- Flight & Sensor Characteristics

Remote Pilots

- Certification
- Ground School Training
- Flight School Training

UAS Inspection Operations

- Mobilization & Safety
- Collecting Element-Level Data
- Data Management

Data & Security

- Storage Types/Options
- Post-processing
- Agency Requirements

Implementation Support → *Flying Forward with the AASHTO Guidelines*

UAS Applications for Bridge Inspections: Element-Level Data Collection

UAS Policy & Management

- Provide support for policy development
- Evaluate current program status and identify personnel, roles and responsibilities necessary to sustain a UAS inspection program
- Develop and/or adopt UAS management systems to streamline a program's management of remote pilots, UAS, and logistics to adhere to the UAS program's policy

Workshops

- Hold virtual workshops with DOT stakeholders to assess program status and establish desired outcomes
- Develop organizational support mechanisms and training content based on the desired outcomes
- Hold virtual workshops to define and develop train-the-trainer materials to support implementation
- In-person workshops for specific personnel training such as a UAS Program Manager and/or UAS Inspection Manager

Training

- Remote pilot and manager training in accordance with policy and management requirements
- Web-based: Pre-recorded video instruction through website or Instructor-led virtual classroom
- In-Person:
  - Ground School: classroom setting to review policies and UAS-related documentation
  - Flight School: outdoor setting to train appropriate UAS flight skills
  - Skill Proficiency: repeatable evaluation to verify remote pilot skill for safe operation of UAS