

Sidewalk & Water Infrastructure Study Updates

Selectboard Meeting

Town of Holliston, MA
Monday, December 6, 2021

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Bill Scarpati, Senior Project Manager





Outline

Pedestrian Accessibility

Water Supply

Water Distribution

Pedestrian Accessibility Recap

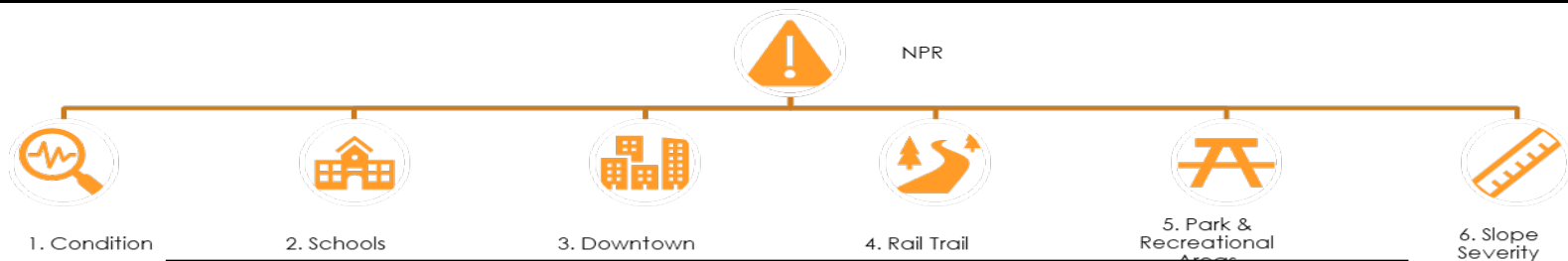


Pedestrian Accessibility Study Methodology



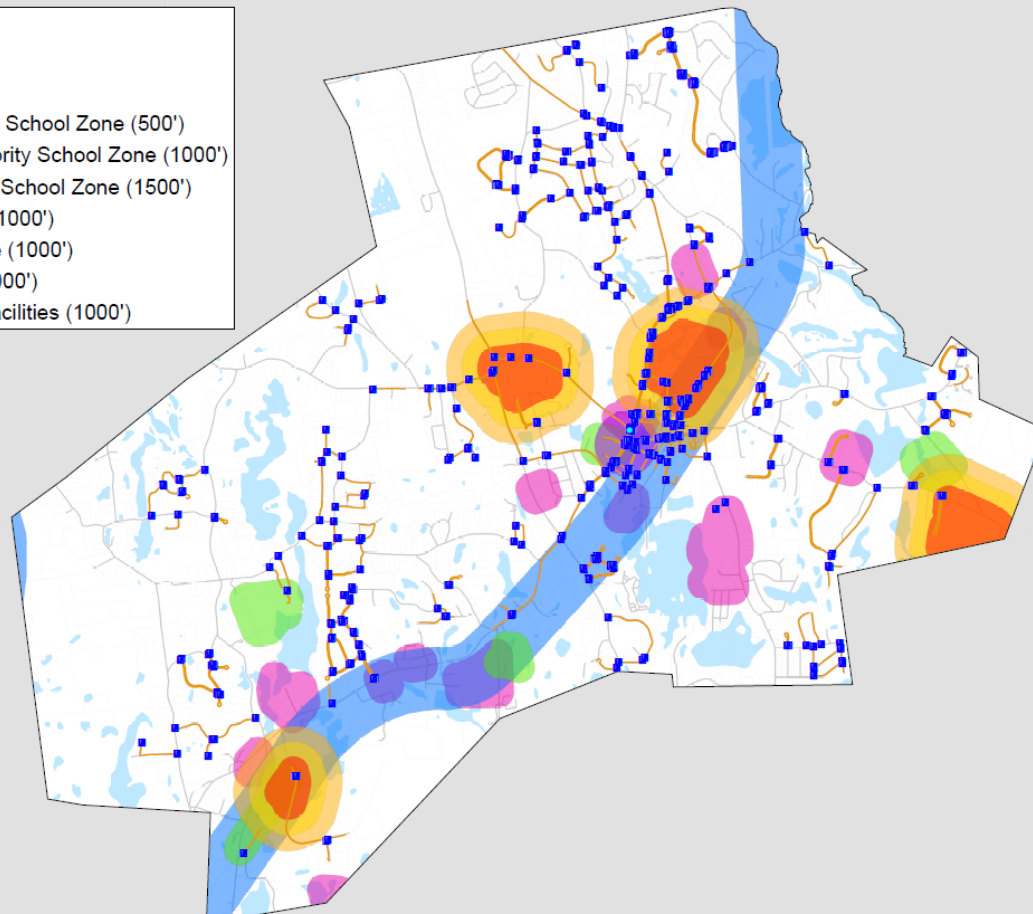
1. Stantec conducted town-wide pedestrian ramp, sidewalk, and crosswalk inventory (located via iPad w/web-based GIS data form)
2. General condition assessment was performed on all ramps, sidewalks, and crosswalks.
 - a) Photograph each asset (Ramp & Sidewalk)
 - b) Ramp and sidewalk material identification
 - c) Surface material condition
 - d) Obvious ramp/sidewalk deficiency categories, based on 2020 ADA/MAAB standards
 - e) Crosswalk existence and condition
 - f) Measured running slope on ramp and landing area (2' Smart Level)
 - g) Measured cross slope on sidewalk (2' Smart Level)
3. Integrated asset assessment into Geographic Information System (GIS) to aid long-term repair strategy
4. Calculated Network Priority Ranking (NPR) for each asset

Network Priority Ranking Formula



Legend

- Ramps
- Sidewalks
- High Priority School Zone (500')
- Medium Priority School Zone (1000')
- Low Priority School Zone (1500')
- Downtown (1000')
- Open Space (1000')
- Rail Trail (1000')
- High Use Facilities (1000')



Results of Pedestrian Accessibility Study



97%

Stantec determined **97%** of total ramps do not comply with ADA/MAAB regulations.

61%

Stantec determined that **61%** of all sidewalks must be repaired or replaced due to existing surface condition.

58%

Stantec determined that approximately **58%** of total sidewalks do not comply with ADA/MAAB regulations.

Town-wide Ramp and Sidewalk Backlog and Projected Funding Levels



\$1.84M

Ramp Repair
Backlog

\$100K

per year to
reconstruct non-
complying ramps

\$5.60M

Sidewalk
Repair
Backlog

\$630K

per year to
maintain
today's SCI

6 Miles

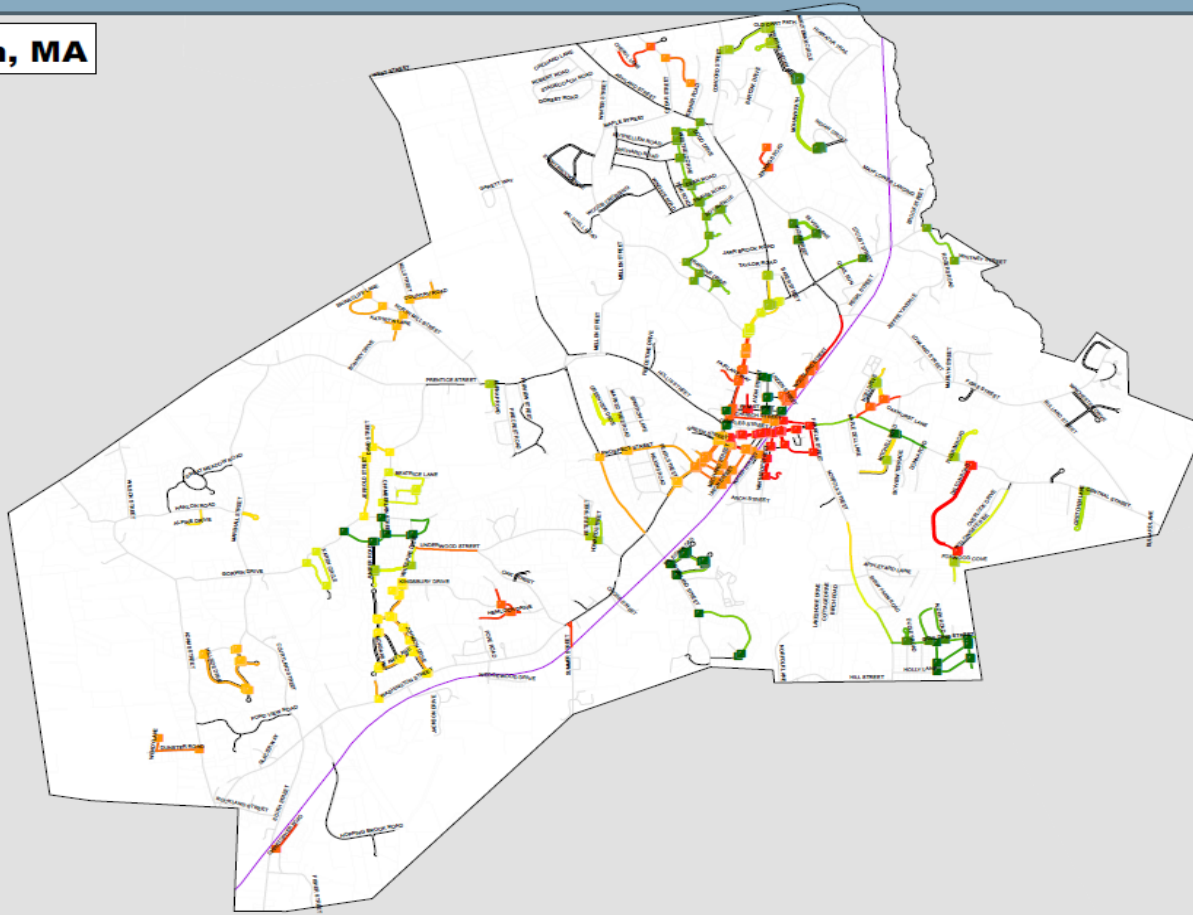
New Sidewalk
Gap Analysis

\$270K

per year to
add new
sidewalks for
improved
network

10 Year Pedestrian Improvement Plan

Holliston, MA



Legend

Ramps

Plan Year

- 10
- 9
- 8
- 7
- 6
- 5
- 4
- 3
- 2
- 1

Sidewalks

— Existing Sidewalk

Plan Year

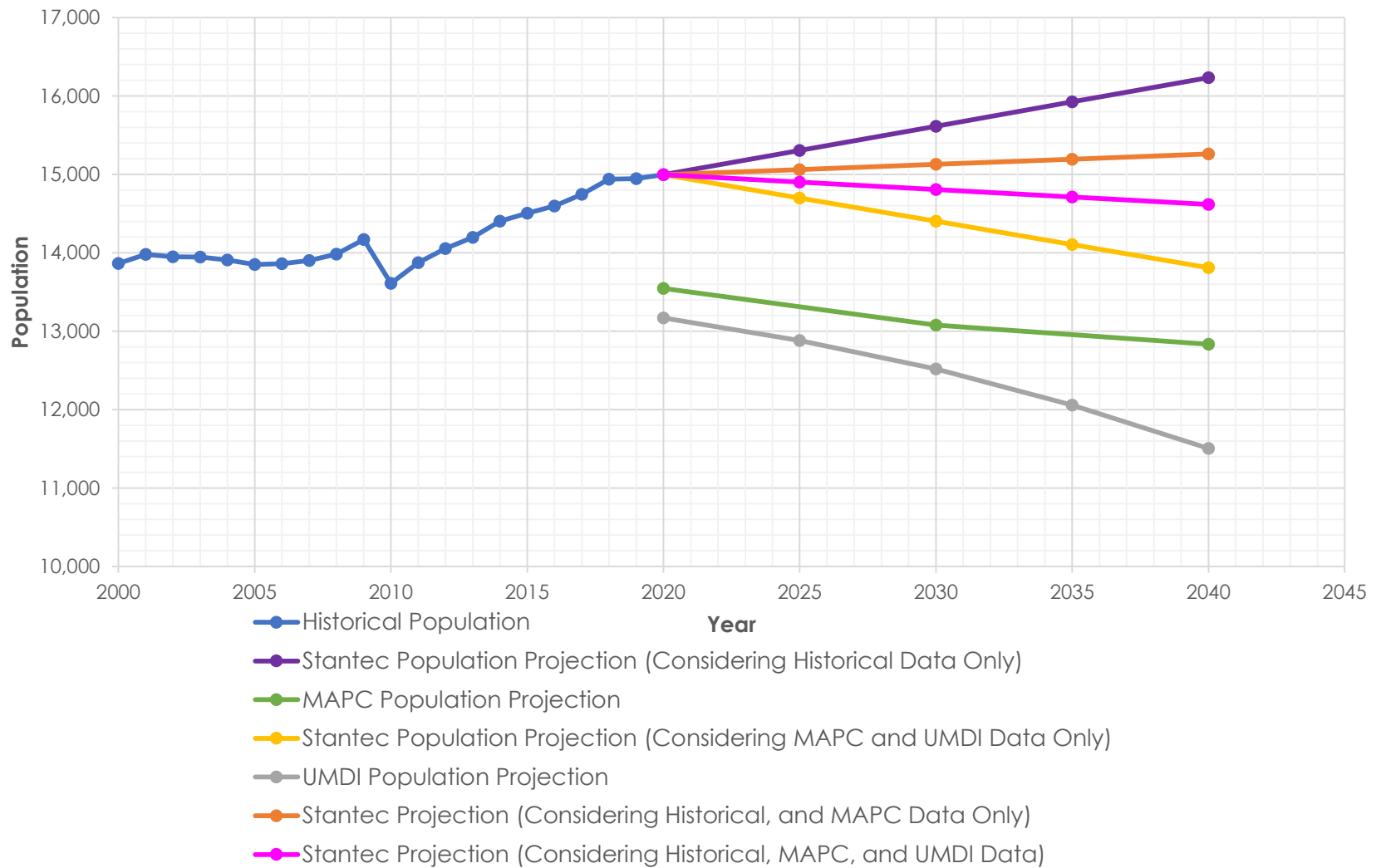
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- Rail Trail

Water Improvement Plan

Water Supply and Distribution



Population Projections



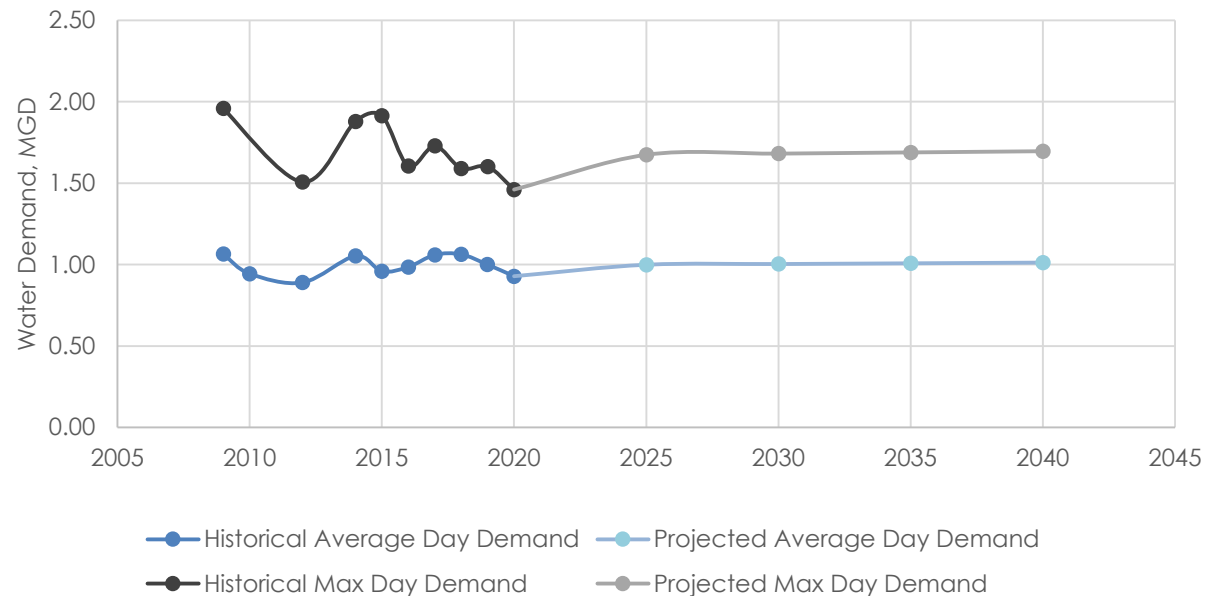
Future Water Projections



<u>Year</u>	<u>2025</u>	<u>2030</u>	<u>2035</u>	<u>2040</u>
Average Day	0.989	0.999	1.004	1.008
Maximum Day (1.68*×Average Day)	1.657	1.674	1.682	1.689

1.41 MGD

Water Management
Act Approved
Withdraw



Water Supply Recommendations

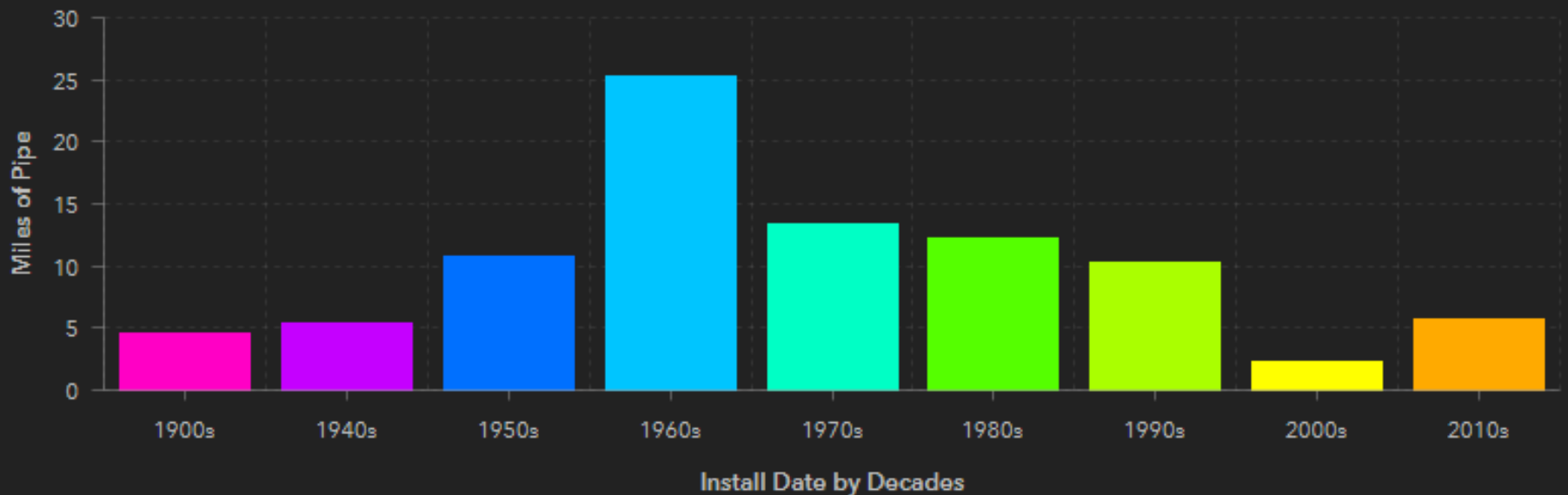


- Complete proper maintenance of existing sources
- Consider optimization of existing sources with increased staffing
- No new sources required at this time, review water demand data every 5 years

Water Distribution



Current Miles Distribution by Install Decade





Water Distribution

Total Pipe - 88 miles

- Existing backlog
 - \$17.7M
 - 14.3 miles
- 25-year plan
 - \$32.3M
 - 26 miles
- Remaining after 25-year plan
 - \$90M (*future dollars)
 - 35.6 miles



Dashboard Demonstration

QUESTIONS?



COMMENTS?