BRIDGE REPLACEMENT STRATEGY WORK SESSION

Bi-State Bridge Replacement Working Group (BSWG)
March 22, 2021

A version was originally presented to the

Port of Hood River Commission

February 25, 2021

Agenda

01

Existing Bridge - Capital Maintenance Plan

Discussion

02

Bridge Replacement Project Strategy

Discussion

03

Key Questions & Project Communications

Discussion

The first obligation of the Port is to keep the bridge safe and operational for as long as possible.

The second obligation of the Port/BSWG is to do everything it can to ensure that a new bridge is built as soon as possible.

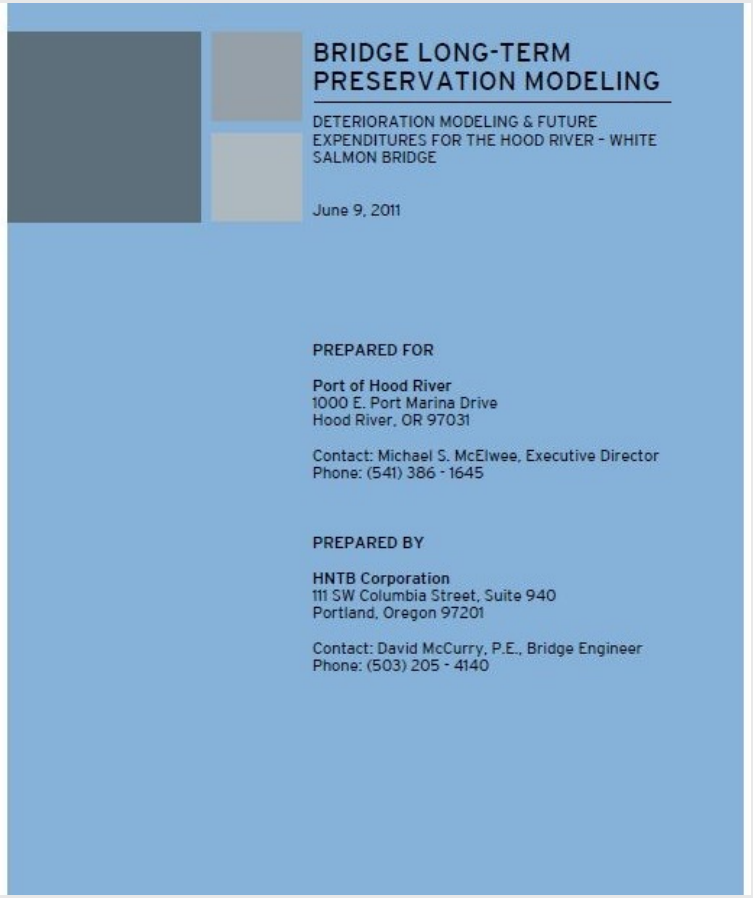
I. EXISTING BRIDGE

Long-Term Preservation Model - 2011

Identify the long-term capital needs of the Hood River Bridge to guide capital investment and maintenance decisions.

Port bridge engineer HNTB was asked to:

1. Organize the bridge by component group
2. Collect and organize available information
3. Prepare component condition summaries
4. Project capital maintenance needs for a 30-year period under 3 deterioration scenarios
5. Estimate corresponding costs



BRIDGE LONG-TERM PRESERVATION MODELING

DETERIORATION MODELING & FUTURE EXPENDITURES FOR THE HOOD RIVER - WHITE SALMON BRIDGE

June 9, 2011

PREPARED FOR

Port of Hood River
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Hood River, OR 97031

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PREPARED BY

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Contact: David McCurry, P.E., Bridge Engineer
Phone: (503) 205 - 4140

LTP Model – Assessment Methodology

Evaluation Component Hierarchy:

DIVISION: Bridge

Subdivision: Superstructure Steel Truss

Component: Span 10

Member: Lower Chord Truss Member L01L02

Piece: Main Longitudinal Channel on L01L02

Longevity Assessment Model – Methods

HR Bridge-Specific Subdivisions:

- Approach Structures
- Foundations
- Substructure (Piers)
- Superstructure (e.g. Trusses)
- Painting
- Deck & Railing Systems
- Lift Span E & M
- Ancillary Items
- Inspections & Studies

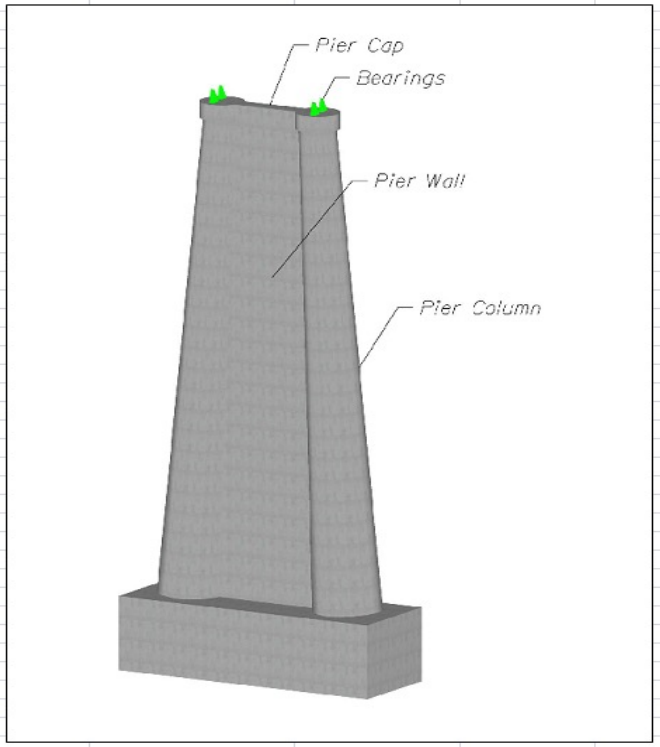
National Bridge Institute (NBI) Rating System

- **9**: Excellent Condition
- **8:** Very Good Condition
- **7:** Good Condition
  - Minor Cracking, Leaching or Spalls
- **6:** **Satisfactory Condition**
  - **Minor Deterioration or Disintegration, Spalls, Cracking, and Leaching.**
- **5:** Fair Condition
  - Some Spalling or Scaling with Exposed Reinforcing Steel Possible but No Loss of Section in Main Bars.
- **4:** Poor Condition
  - Structural Cracks and Advanced Deterioration. Substantial Spalling with Loss of Section on Main Rebars.
- **3:** Serious Condition
  - Severe Disintegration of Concrete.
- 2: Critical Condition
  - Bridge will be Closed Until Condition is Repaired.
- **1:** Imminent Failure Condition
- **0:** Failed Condition

Subdivision Assessment

Substructure Components

Components	Description	Data Sources			
		Bridge Inspection Reports	Fracture Critical Inspection Reports	Underwater Inspection Reports	As-builts
Pier Columns	2 per pier, vertical support	X		X	X
Bearings	on top of pedestal, connects superstructure to the piers & abutments	X	X		X
Pier Wall	connects pier columns	X	X	X	X
Pier Cap	(or pier cap) on top of pier	X	X	X	X

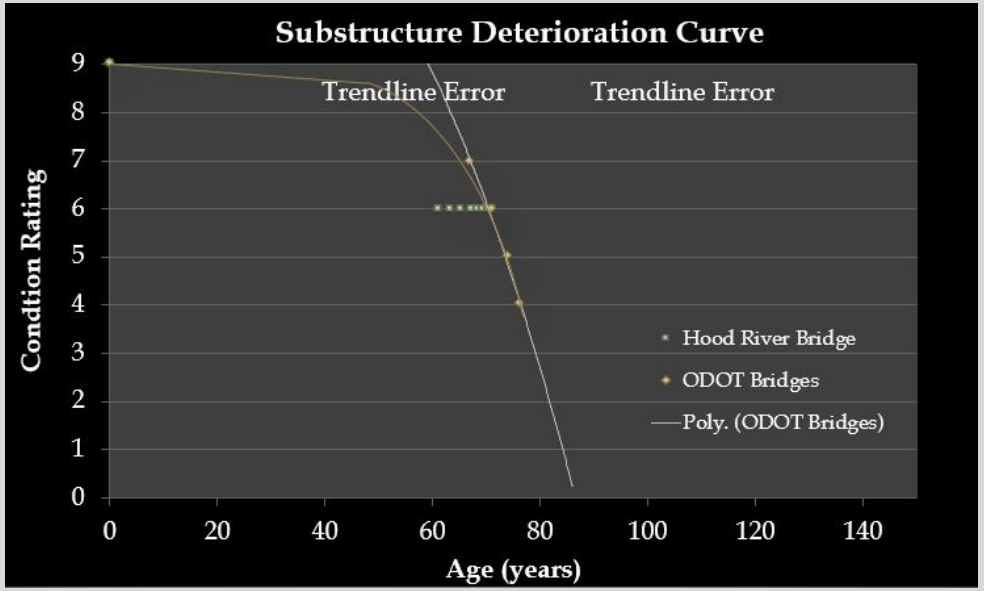


Superstructure Components

Components	Description	Data Sources			
		Bridge Inspection Reports	Fracture Critical Inspection Reports	Underwater Inspection Reports	As-builts
Fracture critical members		X	X		X
Secondary members		X	X		X
Gusset plates		X	X		X
Stringers	W18x35				
Floor Beams					
Through Truss					
Auxillary Truss					

Condition History - Substructure

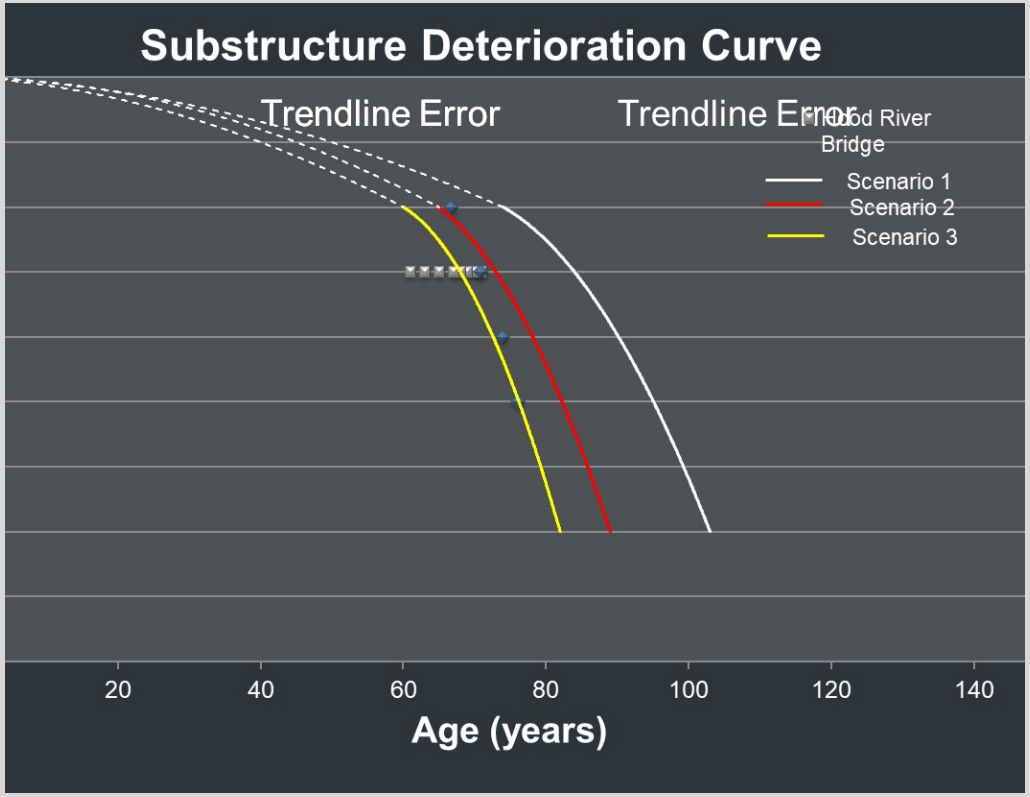
Hood River Bridge							
year	Bridge #	Description	Year Built (recent construction)	ADT	Type	Substructure NBI Rating	Age at rating
2009	06645 002C06462	COLUMBIA RIVER	1938	9213	315	**6**	**71**
2008	06645 002C06462	COLUMBIA RIVER	1938	9122	315	**6**	**70**
2007	06645 002C06462	COLUMBIA RIVER	1938	9122	315	**6**	**69**
2006	06645 002C06462	COLUMBIA RIVER	1938	8000	309	**6**	**68**
2005	06645 002C06462	COLUMBIA RIVER	1938	8000	309	**6**	**67**
2003	06645 002C06462	COLUMBIA RIVER	1938	8000	309	**6**	**65**
2001	06645 002C06462	COLUMBIA RIVER	1938	7500	309	**6**	**63**
1999	06645 002C06462	COLUMBIA RIVER	1938	7500	309	**6**	**61**
1924						**9**	**0**

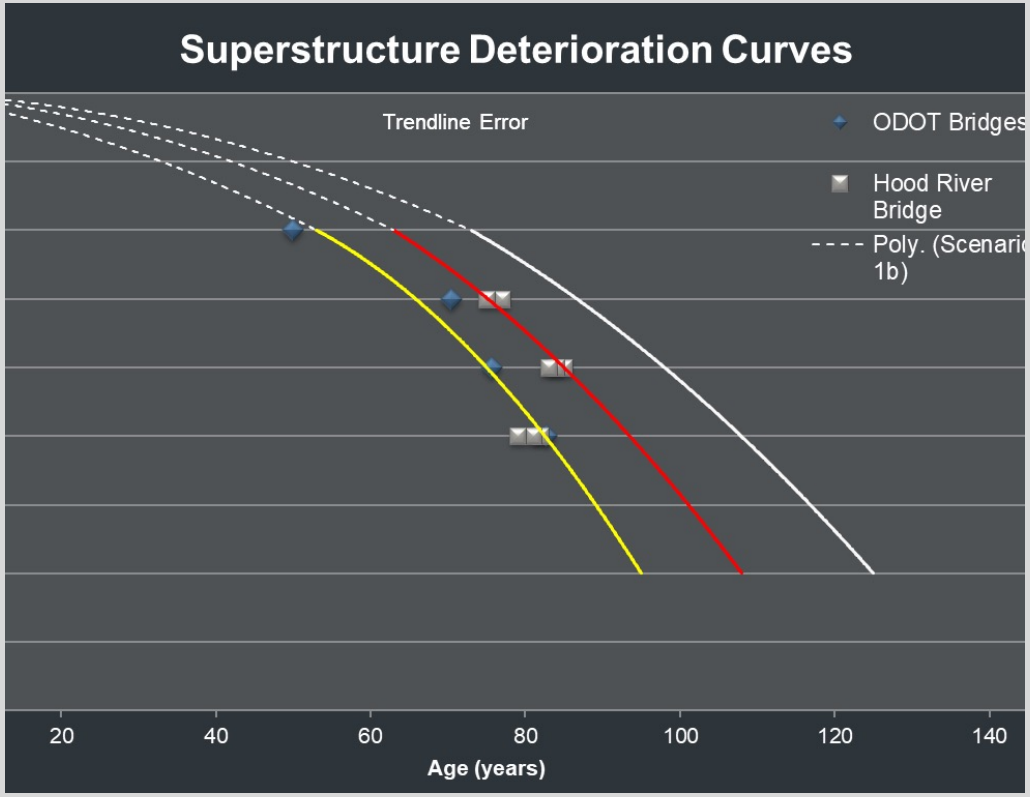


Utilized ODOT Bridge Information to Determine Deterioration for Like Steel Bridges:

- Built Between 1909 and 1941
- Crossing a Waterway

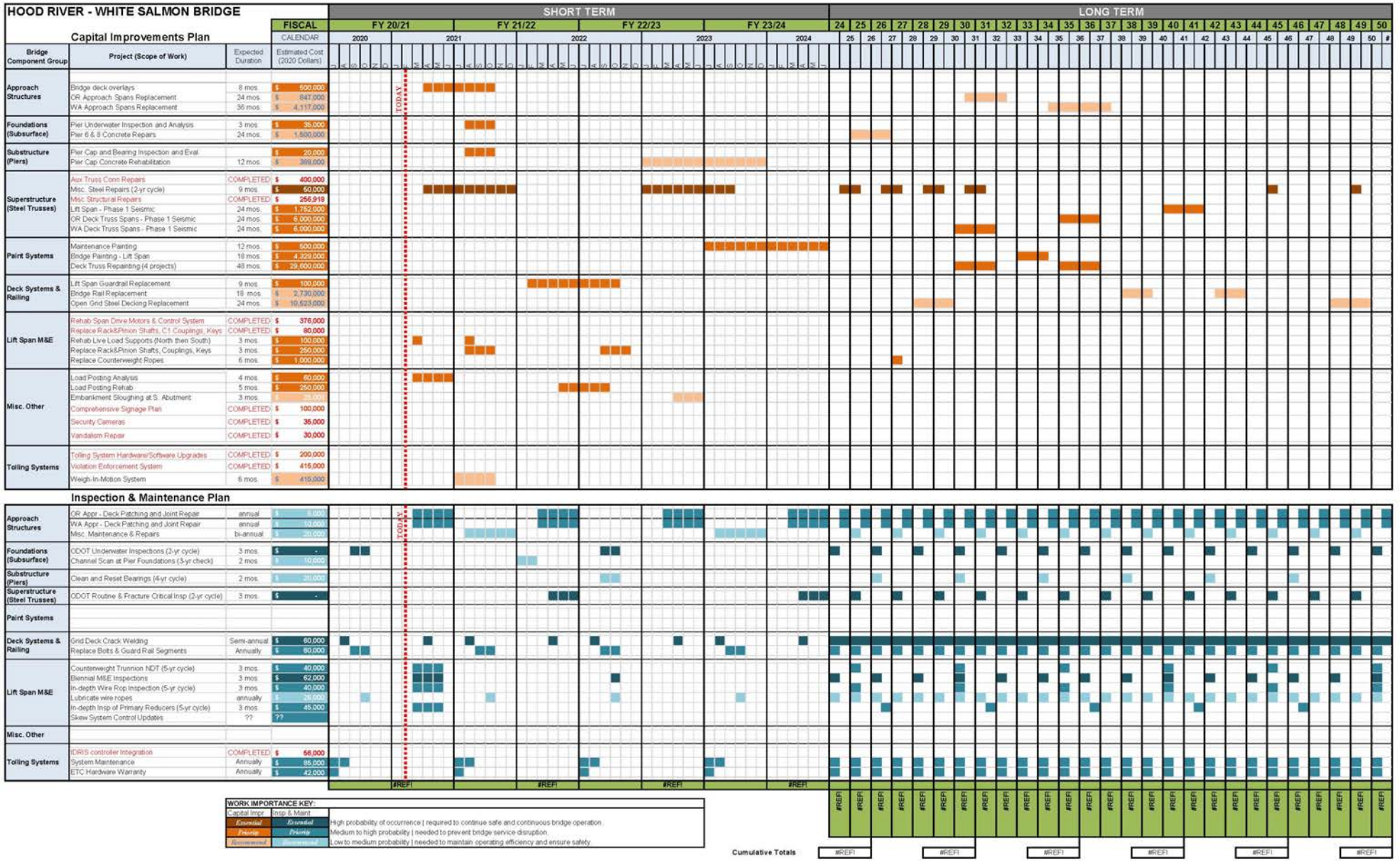
Substructure & Superstructure



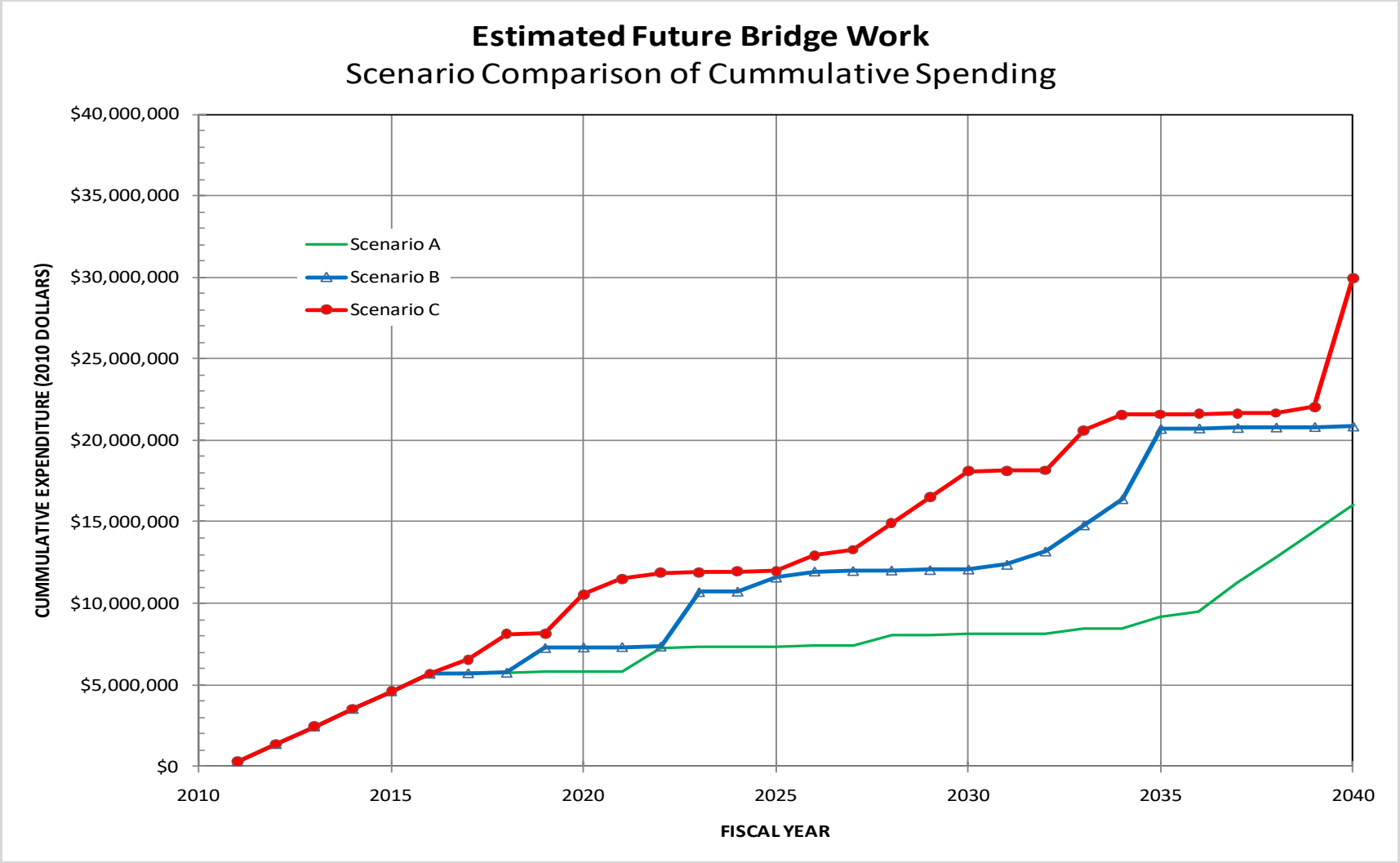


Capital Maintenance Plan

2/11/2021



Cumulative Investment

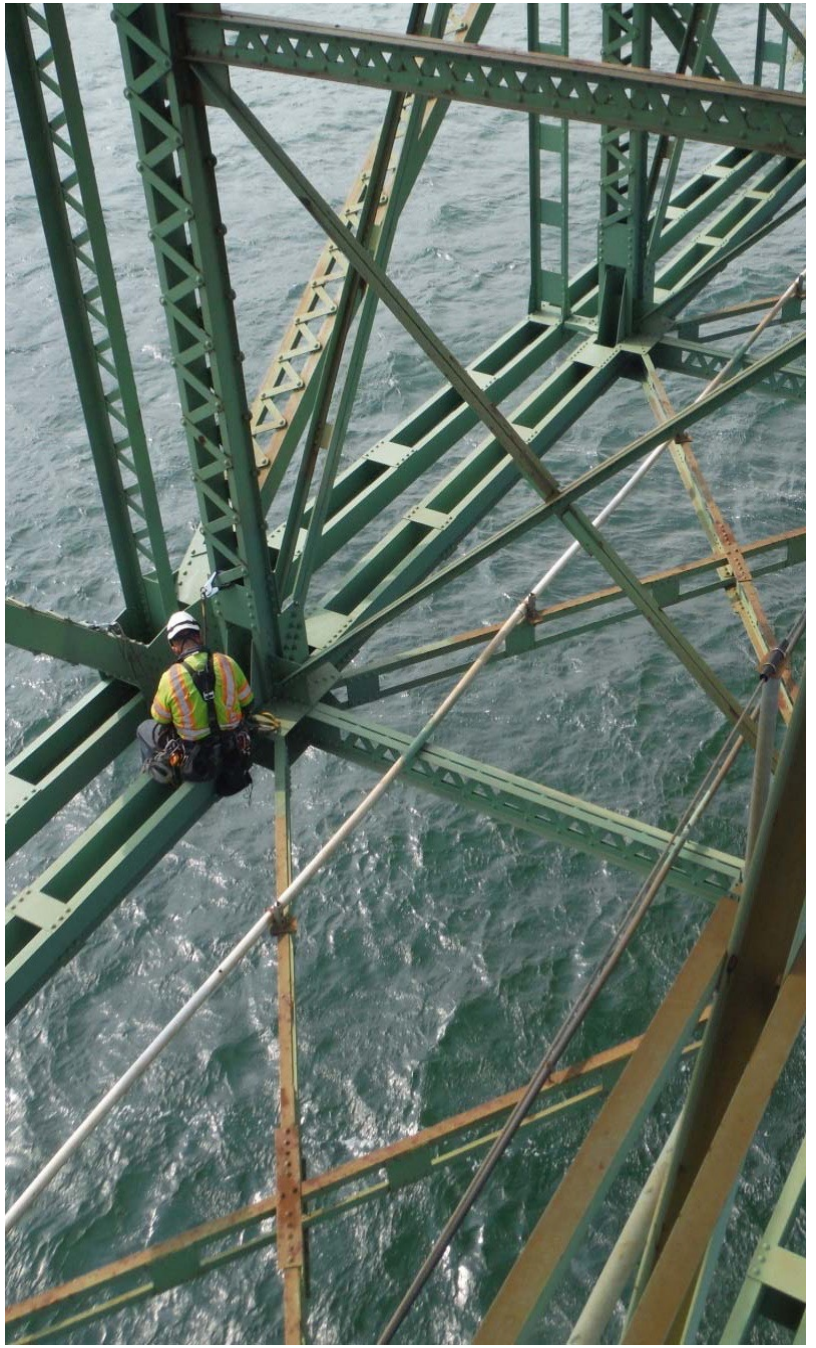


Updating the CMP

The model is updated annually based on inspections, specialized testing and ongoing observations.

Inspection	*Interval*
◦ Fracture Critical	2 Yr.
◦ Underwater –	2 Yr.
◦ Lift span M&E	5 Yr.
◦ Load Rating	15 Yr. +/-
◦ Guardrail	Monthly
◦ Steel Deck	Quarterly
◦ Specialized*	As Req'd.

* e.g. Wire Ropes, Approach Ramp Concrete, Subsurface Piers/Footings, Trunnion NTD, etc.



Completed Projects

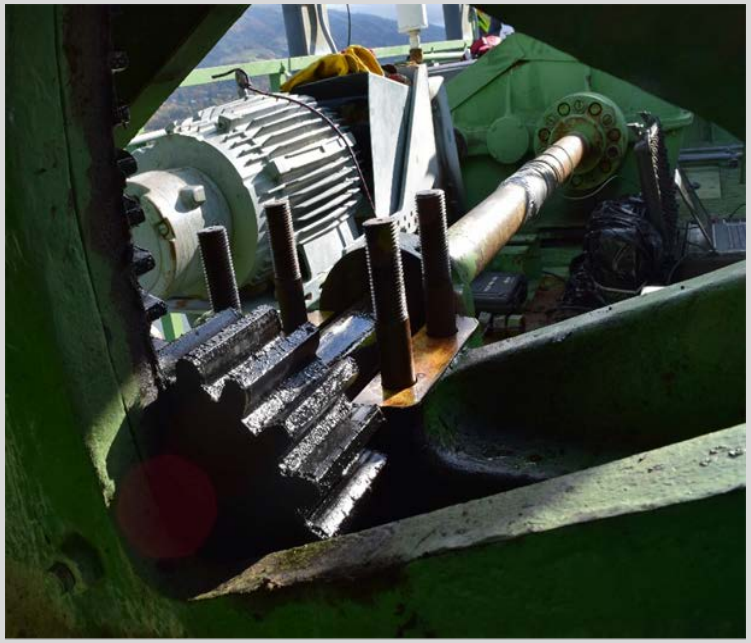
2012 Lower Chord Painting

$2.95 million

2016 Span Guide Replacement & Repairs

$ 62,000

2017 Trunnion Rehab.



$150,000

Completed Projects

2017 Auxiliary Truss Repairs

$367,770

2019 Portal Truss Repair

$256,918

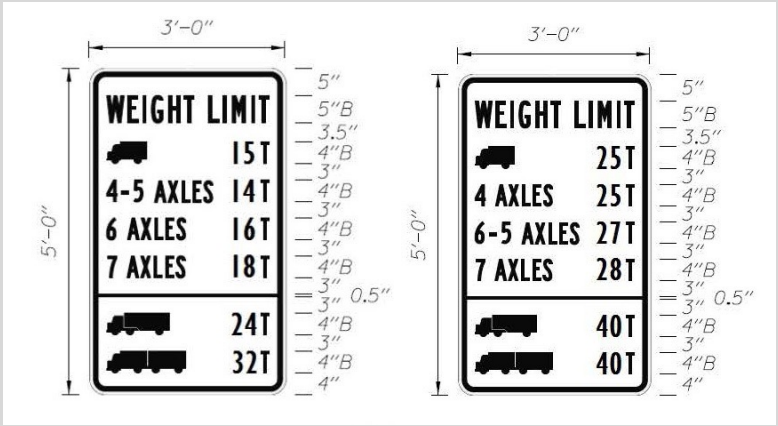
2019 Skew System & Span Drive Motor Rehabilitation

$308,711

Our “Mann” on the bridge – kudos to Facilities Manager John Mann for so many years of great work.

2021 Load Rating Reduction

1. Engineering contract approved - ***Scoping***
2. Complete Engineering Phase I
3. Contract Amend. approval – ***Testing***
4. Complete Engineering Phase II
5. ODOT Acceptance - **Review**
6. Commission Feasibility Decision - **Fall 2021**
7. Contract Amend. Phase III – ***Plans/ Specs***.
8. Complete Plans/specs
9. Bid Process/Construction Contract - **Construction**
10. Project Completion – Fall 2022



Bridge Component Group	Project (Scope of Work)	Expected Duration	Estimated Cost (2020 Dollars)
Approach Structures	[redacted]	[redacted]	$ 500,000
			$ 847,000
			$ 4,117,000
Foundations (Subsurface)			$ 10,000
			$ 1,500,000
Substructure (Piers)			$ 20,000
			$ 389,000
Superstructure (Steel Trusses)			$ 30,000
			$ 1,752,000
			$ 6,000,000
			$ 6,000,000
Paint Systems			$ 500,000
			$ 4,329,000
			$ 29,600,000
Deck Systems & Railing			$ 100,000
			$ 15,000
			$ 2,730,000
			$ 10,523,000
Lift Span M&E			$ 50,000
			$ 250,000
			$ 1,000,000
Misc. Other			$ 60,000
			$ 250,000
			$ 40,000
Tolling Systems			$ 415,000
Approach Structures			$ 5,000
			$ 10,000
			$ 20,000
Foundations (Subsurface)			$ -
			$ 50,000
			$ 10,000
Substructure (Piers)			$ 20,000
Superstructure (Steel Trusses)			$ -
			$ 5,000
Paint Systems			
Deck Systems & Railing			$ 60,000
			$ 60,000
Lift Span M&E			$ 40,000
			$ 62,000
			$ 40,000
			$ 25,000
			$ 45,000
Misc. Other			
Tolling Systems			$ 85,000
			$ 42,000

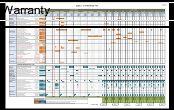
SHORT TERM (FISCAL / CALENDAR; TODAY)

FY 20/21	FY 21/22	FY 22/23	FY 23/24
$ 398,000	$ 1,091,000	$ 1,574,500	$ 1,085,500

LONG TERM

24	25	26	27	28	29	30	31	32	33	34	35	36	37
$ 693,000	$ 744,000	$ 2,168,000	$ 2,687,000	$ 6,431,500	$ 5,744,250	$ 11,218,500	$ 11,663,917	$ 1,666,333	$ 7,505,333	$ 5,498,167	$ 7,817,000	$ 8,725,000	$ 1,183,000

38	39	40	41	42	43	44	45	46	47	48	49	50
$ 369,000	$ 337,000	$ 434,000	$ 402,000	$ 369,000	$ 337,000	$ 354,000	$ 387,000	$ 464,000	$ 337,000	$ 5,615,500	$ 5,568,500	$ 429,000



Essential	*Essential*
Priority	*Priority*
Recommend	*Recommend*

Questions / Discussion

II. REPLACEMENT BRIDGE

Challenges

- Low population base & small, rural communities
- Low traffic/truck volumes
- Limited financial resources
- Complex project
- Future ownership uncertain
- Historical lack of public/agency trust
- Multiple governmental/jurisdictional entities involved
- Limited support from ODOT & WSDOT

Opportunities

- Significant seniority in PNW senate delegation
- Growing awareness & support from OR legislature
- Key support in WA State elected official
- Oregon statutory authority for tolling and P3
- Growing bi-state project collaboration & trust
- New federal financial support via BUILD
- Experienced consultant & staff team
- Emphasis on rural projects in federal programs.

Replacement Strategy

1. Facilitate Bi-State Collaboration
2. Build Community Awareness & Support
3. Build Legislative/Agency Awareness & Support
4. Demonstrate Project Credibility
5. Preserve Project Delivery Flexibility
6. Identify Experienced Team with Diverse Skillsets
7. Pursue All Available Funding Sources
8. Prepare to Transition Project to Another Entity
9. Work Multiple Project Strategies Simultaneously

1. FACILITATE BI-STATE COLLABORATION

Alignment of interests, active and engaged leadership, and unified advocacy on both sides of the river is paramount to successful project completion.

Completed actions:

- BSWG established w/ regular meetings and ongoing staff support
- MOU executed
- Agreement for Bi-State Bridge Authority/Compact legislation
- P3 Panel Discussion w/developing understanding of delivery models
- BUILD grant – Joint application between PoHR and Klickitat Co.

Current efforts / next steps:

- Maintain & increase collaboration
- Complete Bridge Authority feasibility study
- Increase understanding alternative project delivery models including P3
- Establish BSBA legislation review process
- Advocacy for continue project funding in state capitols

2. BUILD COMMUNITY AWARENESS & SUPPORT

Increase public understanding of project need, progress, and pathways forward. Collaborate with local businesses, trade organizations and community leaders to actively advocate for the project or be prepared to do so when appropriate.

COMPLETED ACTIONS

- SDEIS public outreach & survey
- POHR Strategic Business Plan survey
- Community forums & open houses
- Tribal outreach
- Posterboard displays, ads, and news releases
- News articles & social media, web posts
- BSWG webpage with archive of project resources

CURRENT EFFORTS / NEXT STEPS

- Post-NEPA phase public information campaign
- Phase II public involvement strategy
- Formation of Project Advisory Committees
  - Technical
  - Strategic
  - Public Involvement

3. BUILD LEGISLATIVE AGENCY AWARENESS AND SUPPORT

Increase awareness and understanding of state and federal officials of project need, significance, and constituent support and that the project is worthy of their active and strong support.

COMPLETED ACTIONS:

- Annual advocacy trips to Salem, Olympia, Washington, DC
- OneGorge “Gorgeous Nights” receptions
- Established relationships with OR and WA elected officials
- Monthly ODOT/WSDOT/FHWA leadership updates
- National Scenic Area project prioritization in FASTAct/INFRA legislation
- $5 million for FEIS funding & tolling authority
- $5 million BUILD grant in 2020 for Phase II

CURRENT EFFORTS / NEXT STEPS

- BSBA Study authorization in OR and WA
- 1:1 meetings with Transportation and Ways & Means Committee members
- Obtain $5 million from OR in 2021
- Obtain $5 million from WA in 2021
- Monitor additional federal transportation grants or earmarks
- Lobby for increase in USDOT TIFIA project amounts

4. DEMONSTRATE PROJECT READINESS

Achieve project milestones and demonstrate readiness to proceed to show the project is worthy of strong support from elected officials and agency staff.

COMPLETED ACTIONS

- HB2017 Transportation Package funding
- BUILD grant award
- Priority project on CEDS list
- Assembled team of respected experts including lobbyists with long-standing positive relationships with elected officials and agency staff.
- Effective public survey and messaging campaign.

CURRENT EFFORTS / NEXT STEPS

- Finish FEIS and ROD
- Complete Geotechnical analysis
- Hire project engineer to complete 15-30% engineering
- Prepare preliminary cost estimates
- Obtain OR & WA legislative support for Bi-State Bridge Authority
- Identify needed statutory changes in WA

5. PRESERVE OWNERSHIP & PROJECT DELIVERY FLEXIBILITY

Pre-development activities should allow for a wide range of project delivery approaches. The optimum approach will be determined after ownership, funding, and project delivery capacity questions are answered.

COMPLETED ACTIONS

- Port legislative authority for P3 proposal solicitation
- Port P3 Solicitation Policy approved
- Project delivery options public work session (2017)
- P3 work session (2018) and panel discussion (2021)
- Ongoing evaluation of alternative project procurement and construction schedules

CURRENT EFFORTS / NEXT STEPS

- Final engineering contract
- Owners Representative contract
- Construction phase modeling
- Financing alternatives assessment
- Project delivery alternatives evaluation
- Continued executive-level meetings with DOTs

6. ASSEMBLE EXPERIENCED PROJECT TEAM

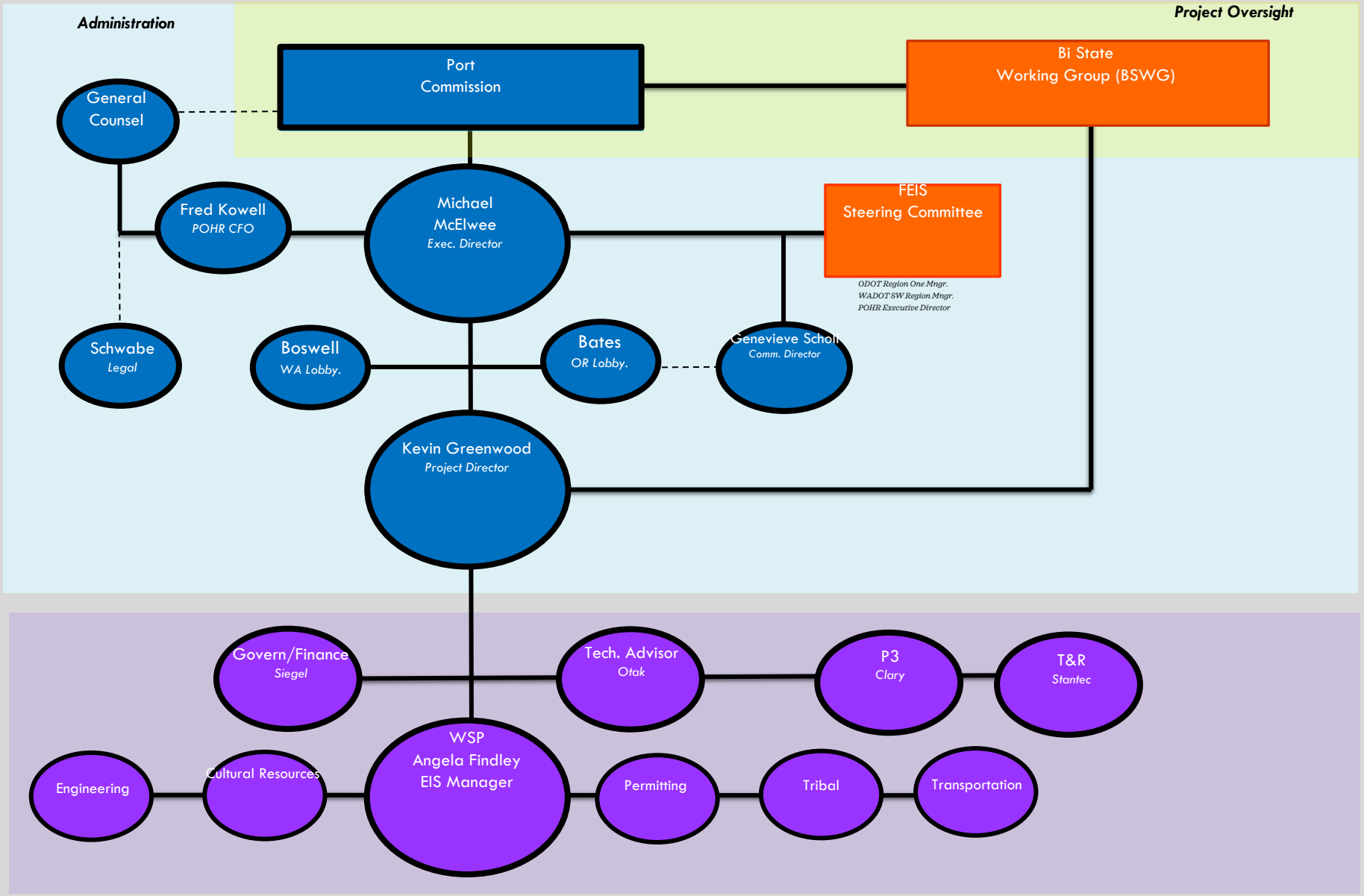
Retain a diverse team of professionals experienced in large public infrastructure projects to guide project implementation.

CURRENT TEAM

◦ Steven Siegel, Siegel Consulting – 45 years.	Strategy, Finance, Governance
◦ Chuck Green, Otak – 35 years	Project Mngt./Procurement
◦ Lowell Clary, Clary Consulting – 32 years	Strategy, Finance
◦ Angela Findley, WSP – 24 years	EIS
◦ Stuart Bennion, WSP -12+ years	Engineering
◦ Hal Heimstra, Summit Strategies – 32 years	Gov. Relations, Federal & State
◦ Dan Bates, Thorn Run Partners– 28 years	Gov. Relations, Oregon
◦ Brad Boswell, Boswell Consultants– 24 years	Gov. Relations, Washington
◦ Anne Pressentin, WSP – 22 years	Public Information
◦ Genevieve Scholl – 15 years	Public Information
◦ Kevin Greenwood – 20 years	Project Administration
◦ Michael McElwee 38 years	Administration & Management

Total combined experience (including POHR staff) = 250+ years

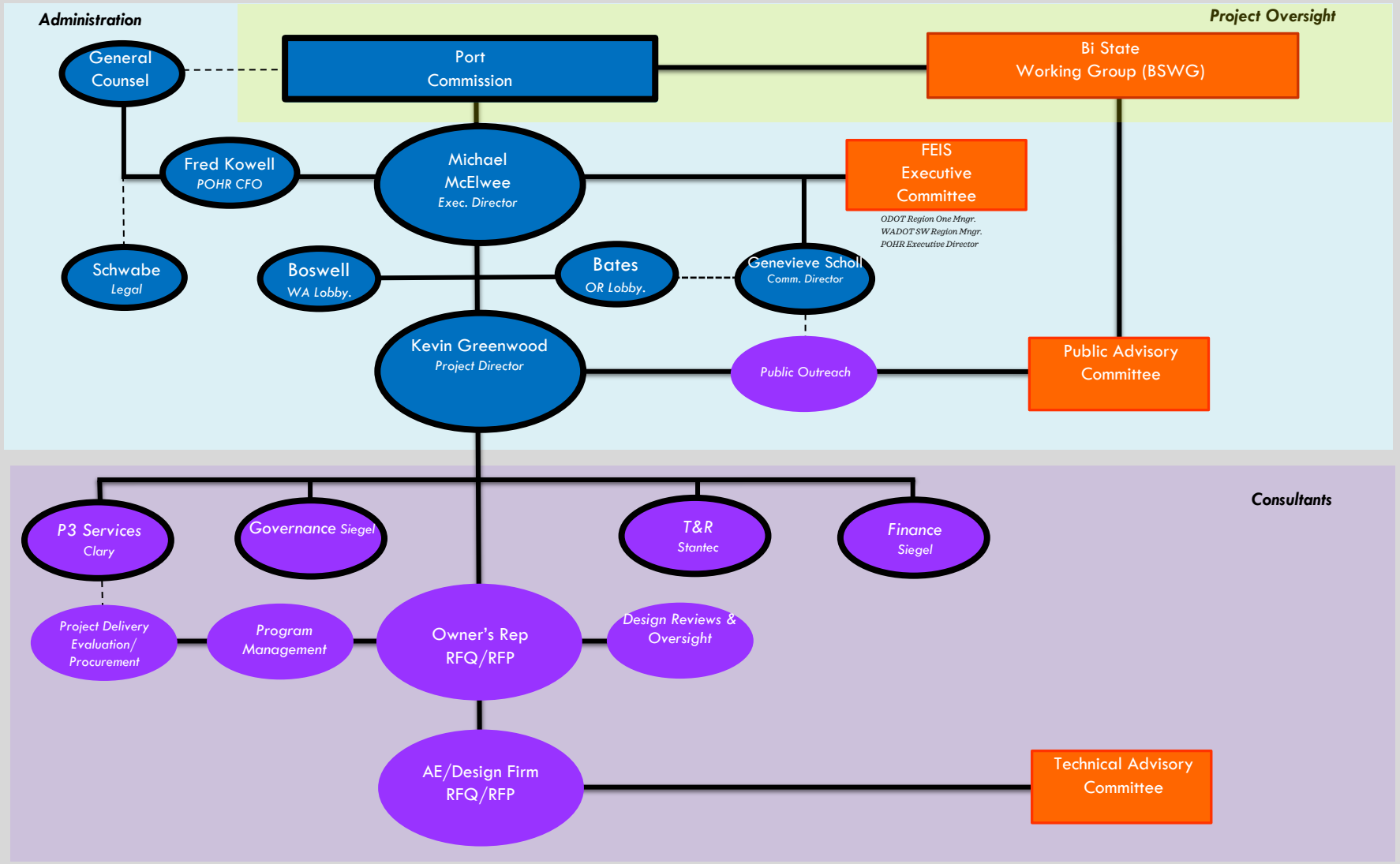
Org Chart: FEIS



CURRENT EFFORTS / NEXT STEPS

- Add members for Phase II efforts
  - Project Engineering Firm
  - Owner's Representative

Org Chart: Post-NEPA



6. PURSUE ALL AVAILABLE FUNDING SOURCES

Recent project funding successes enable the project to complete NEPA and initiate preliminary engineering. $10 million is needed to complete Phase II. All options must be pursued to obtain it. Funding to complete the entire project is not possible until governance, ownership, and legislative approvals are in hand.

COMPLETED ACTIONS

- $5 million in Oregon HB2017 Transportation Package
- $5 million federal BUILD grant award
- $1.25 million Port of Hood River match

CURRENT EFFORTS / NEXT STEPS

- $5 million from OR Legislature
- $5 million from WA Legislature
- Federal grant opportunities (INFRA, BUILD)
- Federal infrastructure legislation
- Federal loan/bond programs (TIFIA, USDA)
- P3 project delivery options evaluation

8. TRANSITION PROJECT TO ANOTHER ENTITY

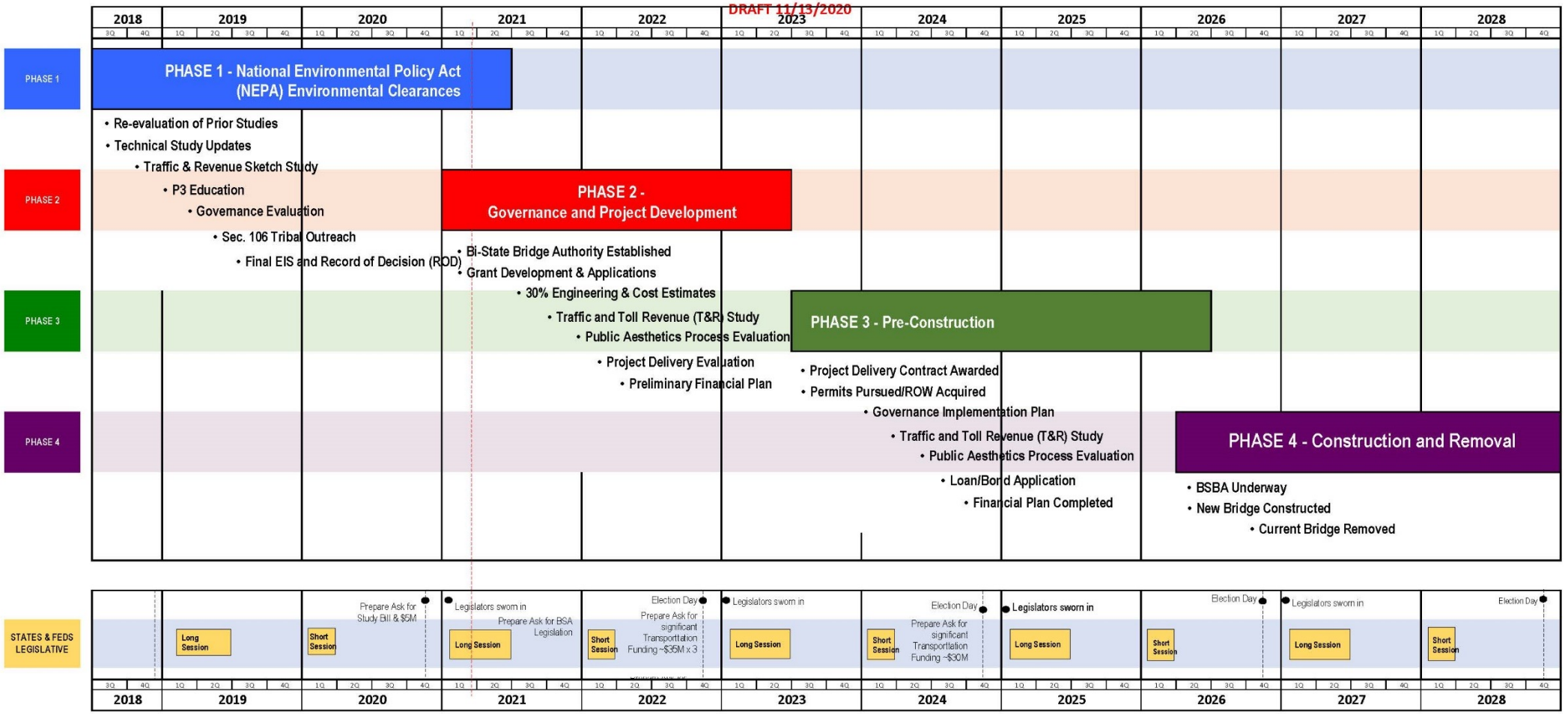
- *The Port is leading the project now because it is the current owner of the bridge, has statutory authority to own and manage a toll facility in Oregon and has project administration experience. The Port expects to transition the project to another lead agency (Bridge Authority or DOT) at or near the end of Phase II.*

9. WORK PROJECT STRATEGIES SIMULTANEOUSLY

All efforts are being pursued at the same time to secure the best opportunity for project success.

CONCEPTUAL PHASING SCHEDULE
HOOD RIVER-WHITE SALMON INTERSTATE BRIDGE REPLACEMENT

~~DRAFT 11/13/2020~~



Replacement Strategy -MODIFIED DRAFT
(As of 3/20/21)

1. Facilitate Bi-State Collaboration
2. Raise Community Awareness & Support
3. Build Elected/Agency Awareness & Support
4. Demonstrate Project Readiness
5. Evaluate Multiple Project Delivery Options
6. Assemble a Highly Experienced Project Team
7. Prepare to Transition Project to Another Entity

SOME RECENT QUESTIONS

Why not …

1. Set a hard closure date or an absolute replacement date now?
2. Stand up a large Project Management Organization now?
3. Take steps to determine project delivery method now?
4. Use a parallel or staggered strategy?
5. Determine who will own the bridge after replacement now?

Questions / Discussion

III. PROJECT COMMUNICATIONS

BI-STATE WORKING GROUP

- Monthly written reports submitted via email
- Regular monthly meetings
- Verbal reports and updates during meetings
- Consultant, agency, and staff memos and presentations
- BSWG web page hosted on portofhoodriver.com
  - Project resource archive
  - Meeting notices and minutes
  - Project updates blog
- 1 seat on BSWG + 1 alternate for each agency
- Periodic updates to member agency boards/commissions

TOOLS

Members have requested development of communication tools/collateral that would assist in communicating in clear, simple terms the nature of this complex project. Staff has developed, or is currently working on developing the following assets:

1. Lobbying handouts
2. Monthly project update posters
3. Legislative Strategy Chart
4. Elevator Speech
5. Project Delivery Chart showing Tasks related to Delivery Options
6. Project website with archive of resources and project blog
7. Project social media feeds

IV. NEXT STEPS

ELEVATOR SPEECH?