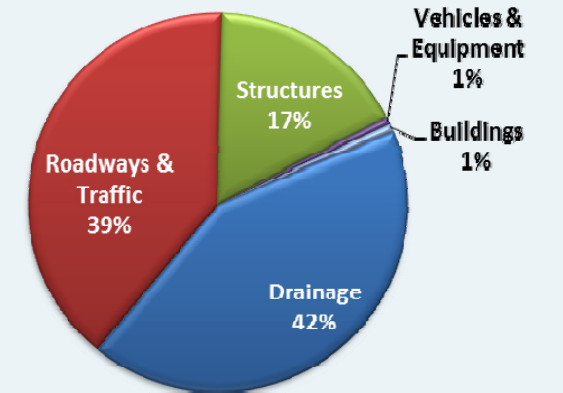
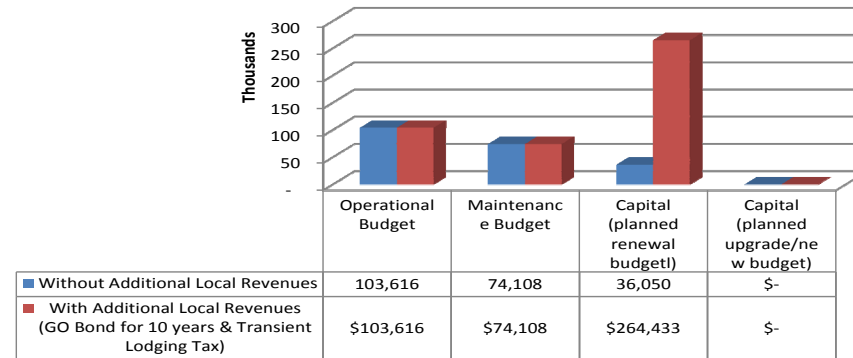


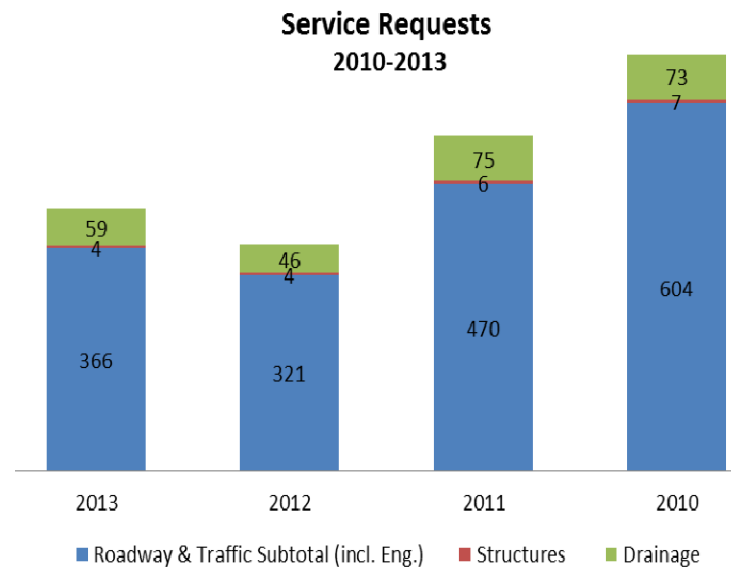
### STRATEGY OUTLOOK

- The community has recently added additional revenues which has slowed the County road system's deterioration; however resources are insufficient to meet needs.
- Tillamook County manages an old road system. Approximately one-third of County transportation assets are in poor / very poor condition. This will grow over the next 10 years in spite of recent additional funding.
- The Road Department is not able to maintain current service levels for the next 10 years. The majority of expenditures are reactive maintenance with most resources allocated to reacting to potholes, failed bridges, culverts & guardrails. The one exception to this is vegetation management (spraying), the only preventative maintenance program currently. Moving forward with more revenue, the focus will be on renewal.
- Despite this, Tillamook County's Road Department performs at a very high level because of the skills, knowledge of the road system and experience of its people. These people are very effective at managing increasing risks as assets reach the end of useful operating life. Staffing continues to be insufficient.
- The Department's asset management plan captures current knowledge and experience and has helped guide County road system planning. However this overarching asset management plan is the first stage of asset management improvement. The County needs to further develop asset plans that show varying funding scenarios, what can be done, what can't be done and how the service level consequences and risks will be managed. This plan reflects this move.
- Even with monies approved by voters in 2013, funding is insufficient. The County will continue to seek opportunities to fund needs outside budget authority by partnering with key stakeholders and applying for grants.
- The County will continue to communicate levels of service based on best knowledge of the road system and available resources.

Structures - 2014 Budget



## Comments on Tillamook County's Structures Network



### Key Issues facing structures are:

- Better information on the condition, performance and values of County levees is needed.
- Better knowledge of future bridge and levee renewal is needed; 25% of the County's bridges have timber in their main span. The useful life of timber bridges is 30 years.
- Bridge inventory is growing due to failed culverts converting to bridges (opposite management strategy to 1950-70).
- The weight of logging and dairy truck traffic on County bridges and roads is a current and future risk to the County road network.
- With passage of local bond measure, the perception is Road Dept. needs are addressed.
- The frequency and intensity of weather-related events are considered a risk to County bridges, levees and guardrail condition.

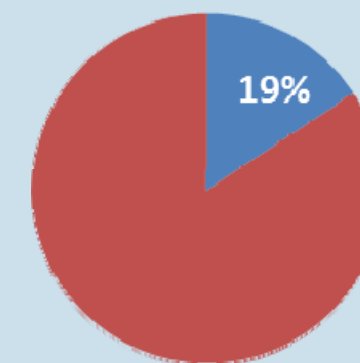
## Service Activities

- Bridge condition assessment and management
- Levee maintenance
- Guardrail inspection and management
- Bridge maintenance
- Bridge replacement

### WHAT SERVICE LEVELS LOOK LIKE (examples)



### Assets Supporting Services



- 101 Bridges
- 10.1 miles Guardrails
- 7 Levees

**\$130,465,109**  
Value of Structures Assets

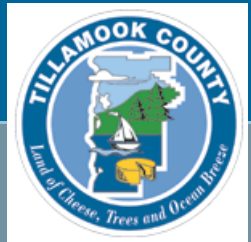
### SERVICE / ASSET ACTIVITIES

⇒ Bridges

⇒ Guardrails

⇒ Levees

# Tillamook County: Structures (Bridges)



## FUNDING SCENARIO 2A – CURRENT INVESTMENT LEVEL WITHOUT ADDITIONAL LOCAL REVENUES

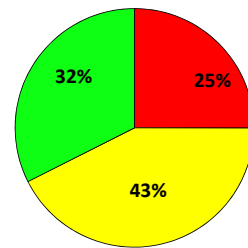
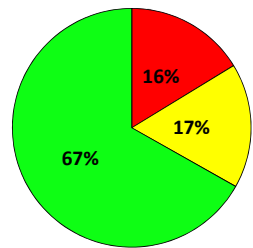
This Funding Scenario Summary shows the current and projected service levels, budget and expenditure profiles for the current Long Term Financial Plan balanced to the Asset Management

### OVERALL ASSET PROVISION - FUNDING SCENARIOS

#### CURRENT QUALITY/CONDITION

#### 10 YEAR QUALITY/CONDITION - SCENARIO 2A

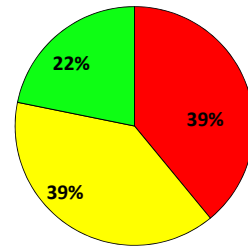
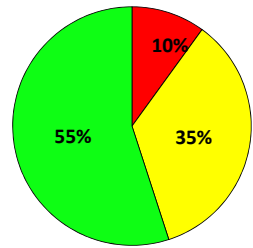
Confidence in Data
High
Moderate
Low



#### CURRENT FUNCTION

#### 10 YEAR FUNCTION - SCENARIO 2A

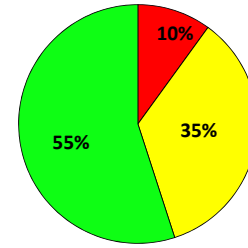
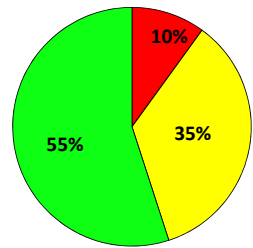
Confidence in Data
High
Moderate
Low



#### CURRENT CAPACITY

#### 10 YEAR CAPACITY - SCENARIO 2A

Confidence in Data
High
Moderate
Low



Good Fair Poor

### FUNDING DESCRIPTION

- ⇒ Current condition/function/capacity
- ⇒ Scenario 2A – No additional local revenues
- ⇒ Scenario 2B - With Additional Local Revenues (GO Bond & Transient Lodging Tax)

Budget reflects the culmination of insufficient revenues. Inadequate resources led to reactive maintenance and the lack of a targeted preventive maintenance bridge program. The number of bridges in Poor condition has tripled in 9 years to 16. 10 bridges are load limited, or require special permit. Six bridges are scheduled to be replaced between 2015 and 2017 (Lommen, Whalen Island, Holgate, Wyss, Cedar Creek and Southfork Trask). These six bridges will be funded 90% by the U.S. Federal Highway Administration and 10% by local funding. There are seven levees managed by Tillamook County (Moss Creek Road, Beaver Creek, Tone Road, Makinster, Boquist Road, and Miami-Foley Road). The lifecycle and 10 year costs are what is determined that needs to be spent annually to maintain the current levels of service for the asset class and prevent further decline in service levels. The available funding reflects the budgeted funding allocation for the category. Only 73% of lifecycle needs are being funded.

### SUMMARY OF ASSET COSTS

#### LONG TERM - LIFECYCLE COSTS

Life Cycle Gap it is estimated that there will be an average annual funding shortfall of **\$750,000** each year over the whole of life of the Structure asset class. This is based on the depreciation value from the Asset Register.

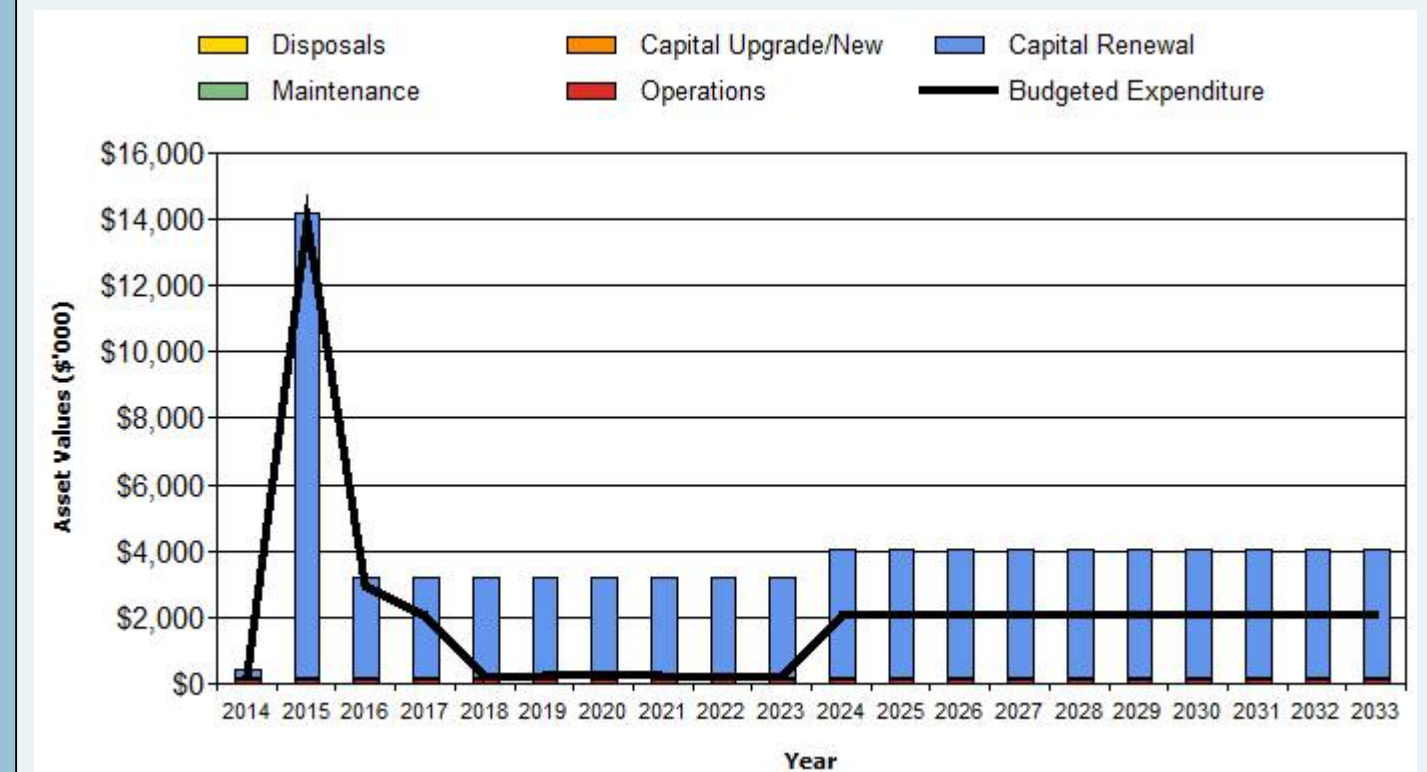
Lifecycle Cost (annually)	\$2,787,000
Lifecycle Available Funding (annually)	\$2,037,000
Lifecycle Gap (annually)	<b>-\$750,000</b>
Lifecycle Financing Indicator	73%

#### MEDIUM TERM - 10 YEAR FINANCIAL PLANNING PERIOD

It is estimated that there will be an average annual funding shortfall of **\$1,998,000** each year over the next 10 years to maintain the current level of service for the Structure asset class.

10 Year Cost (annually)	\$4,035,000
10 Year Available Funding (annually)	\$2,037,000
10 Year Gap (annually)	<b>-\$1,998,000</b>
10 Year Financing Indicator	50%

### 20 Year Projected Operating & Capital Expenditure



Source: NAMS PLUS2 Structure 2014 FM1\_S2\_V4 (Where no bars displayed the projected expenditure for this funding type is \$0)

# Tillamook County: Structures (Bridges)

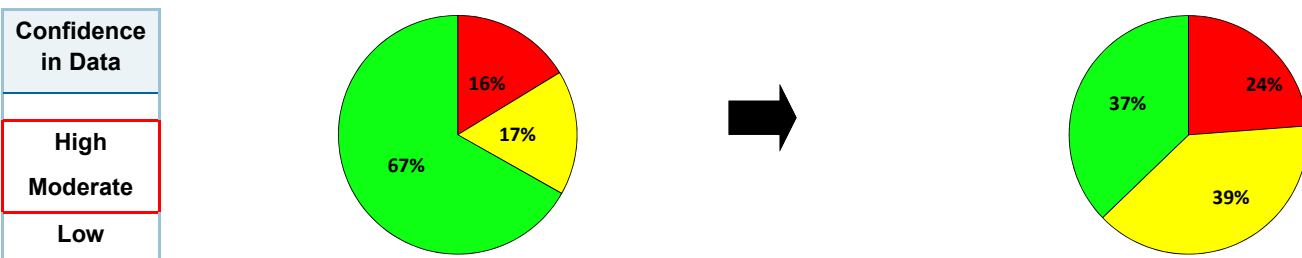


FUNDING SCENARIO 2B – WITH ADDITIONAL LOCAL REVENUES (GO BOND FOR 10 YEARS & TRANSIENT LODGING TAX)

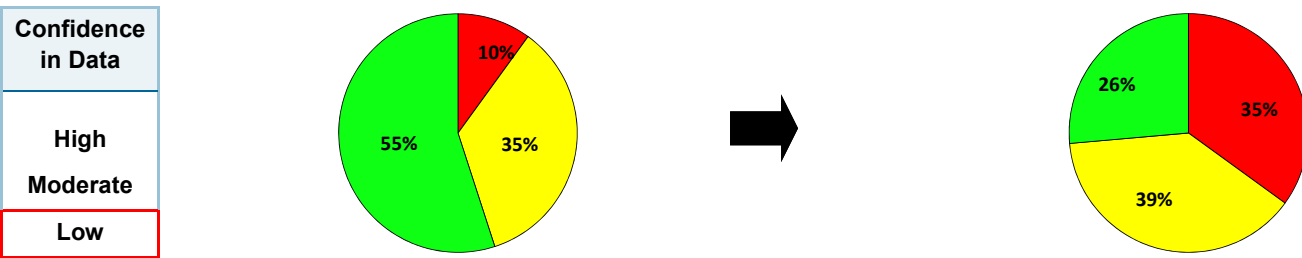
This Funding Scenario Summary shows the current and projected service levels, budget and expenditure profiles for the current Long Term Financial Plan balanced to the Asset Management

## OVERALL ASSET PROVISION - FUNDING SCENARIOS

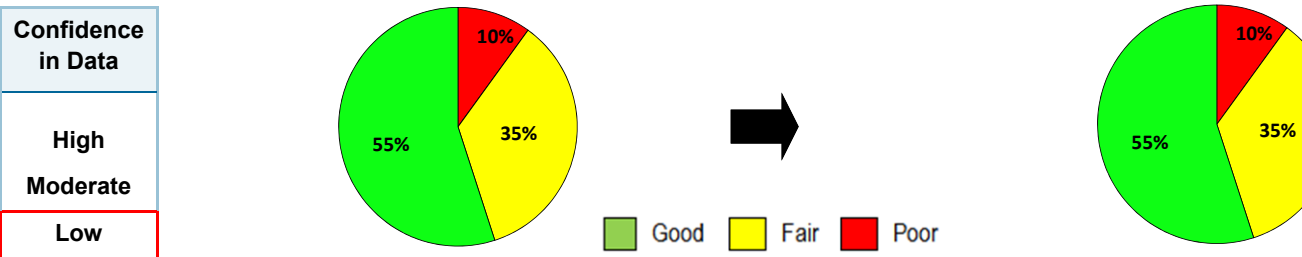
### CURRENT QUALITY/CONDITION 10 YEAR QUALITY/CONDITION - SCENARIO 2B



### CURRENT FUNCTION 10 YEAR FUNCTION - SCENARIO 2B



### CURRENT CAPACITY 10 YEAR CAPACITY - SCENARIO 2A



## FUNDING DESCRIPTION

- ⇒ Current condition/function/capacity
- ⇒ Scenario 2A – No additional local revenues
- ⇒ Scenario 2B - With Additional Local Revenues (GO Bond & Transient Lodging Tax)

Budget reflects the culmination of insufficient revenues. Inadequate resources led to reactive maintenance and the lack of a targeted preventive maintenance bridge program. The number of bridges in Poor condition has tripled in 9 years to 16. 10 bridges are load limited, or require special permit. Six bridges are scheduled to be replaced between 2015 and 2017 (Lommen, Whalen Island, Holgate, Wyss, Cedar Creek and Southfork Trask). These six bridges will be funded 90% by the U.S. Federal Highway Administration and 10% by local funding. There are seven levees managed by Tillamook County (Moss Creek Road, Beaver Creek, Tone Road, Makinster, Boquist Road, and Miami-Foley Road). The lifecycle and 10 year costs are what is determined that needs to be spent annually to maintain the current levels of service for the asset class and prevent further decline in service levels. The available funding reflects the budgeted funding allocation for the category. Only 83% of lifecycle needs are being funded.

## SUMMARY OF ASSET COSTS

### LONG TERM - LIFECYCLE COSTS

Life Cycle Gap it is estimated that there will be an average annual funding shortfall of **\$475,000** each year over the whole of life of the Structure asset class. This is based on the depreciation value from the Asset Register.

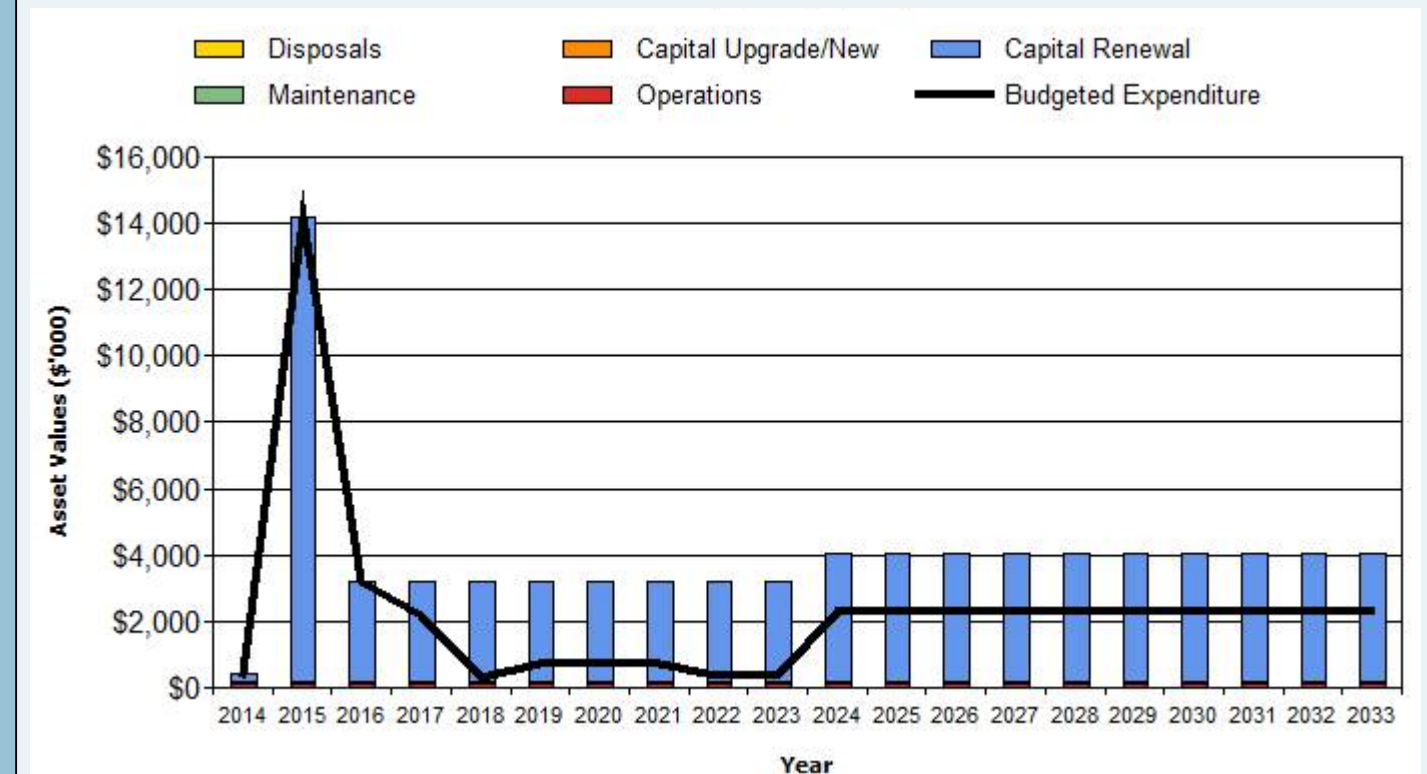
Lifecycle Cost (annually)	\$2,787,000
Lifecycle Available Funding (annually)	\$2,312,000
Lifecycle Gap (annually)	<b>-\$475,000</b>
Lifecycle Financing Indicator	83%

### MEDIUM TERM - 10 YEAR FINANCIAL PLANNING PERIOD

It is estimated that there will be an average annual funding shortfall of **\$1,998,000** each year over the next 10 years to maintain the current level of service for the Structure asset class.

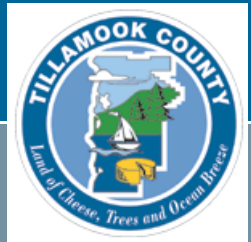
10 Year Cost (annually)	\$4,035,000
10 Year Available Funding (annually)	\$2,312,000
10 Year Gap (annually)	<b>-\$1,723,000</b>
10 Year Financing Indicator	57%

## 20 Year Projected Operating & Capital Expenditure



Source: NAMS PLUS2 Structure 2014 FM1\_S2\_V4 (Where no bars displayed the projected expenditure for this funding type is \$0)

# Tillamook County: Structures (Bridges)



## COMPARISON OF FUNDING SCENARIOS

### OUTCOMES & STRATEGIC OBJECTIVES

A continuous road network over rivers, streams and uneven terrain supporting the traveling public and safety of all road users with well maintained bridges, guardrails and levees.

Objectives to achieve this are:

- Build and inspect bridges, guardrails and levees to comply with established standards
- Maintain and repair bridges to ensure long-term sustainability
- Respond to requests within specified timeframe and complete based on risk and available resources.

### MANAGEMENT ACTIVITIES

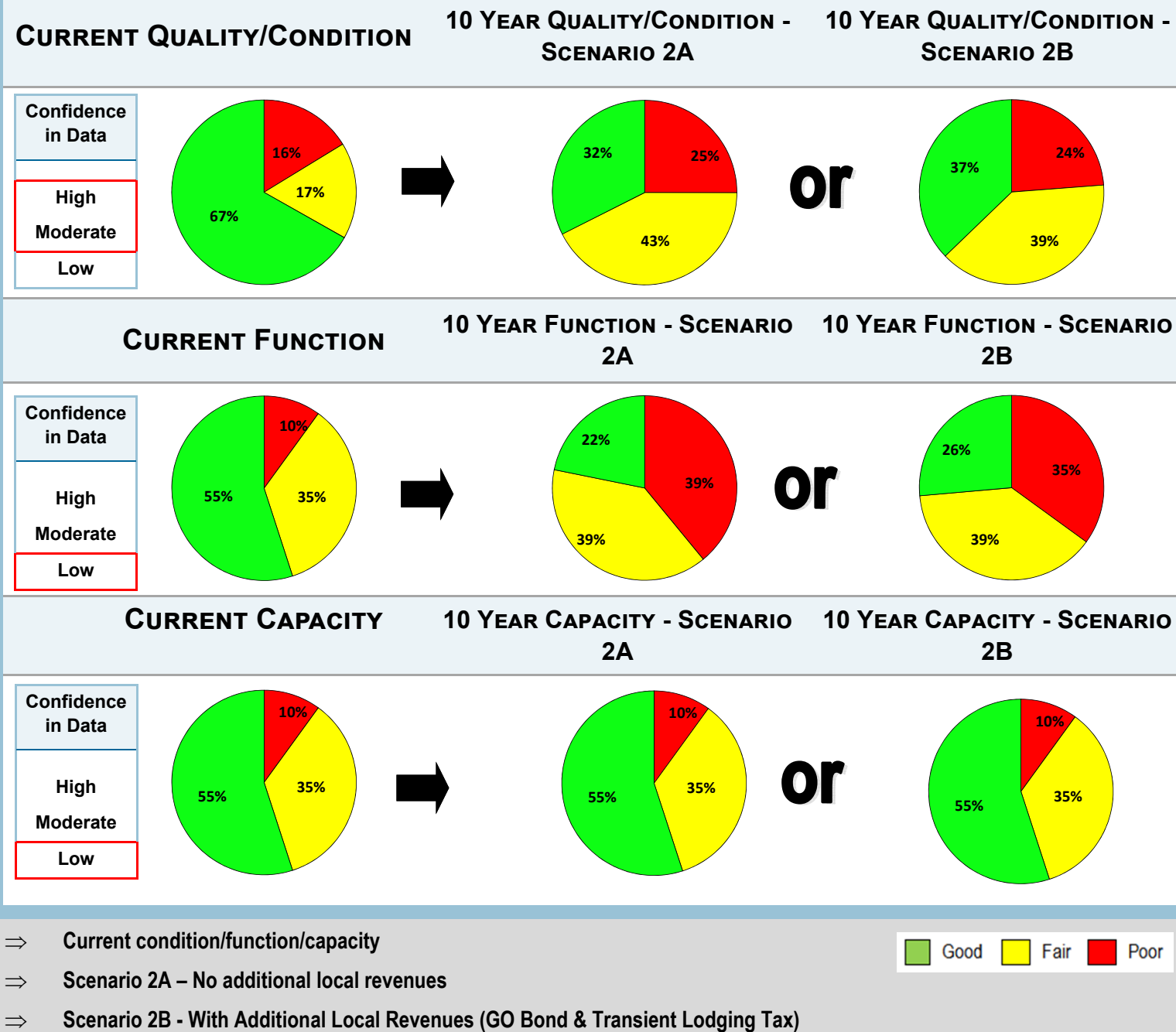
- Structure-related expenditures have declined significantly with completion of the OTIA bridge program, statewide bonds used from 2006-2009 to repair and replace bridges throughout Oregon. With OTIA's completion, the County continues to seek and has been successful receiving state and federal funds to rehabilitate and replace bridges.
- Four percent (4%) of Road funds were spent on bridges, guardrails and levees in 2013.

### RISKS

- Condition deteriorates to point of asset failure under normal traffic loading
- Failure during natural disaster event or restricted use
- Restrictions on load/dimensions of use
- Asset fails during natural disaster
- Guardrail failure caused by poor design, landslide and vehicle impact, storm damage
- Natural disaster (wind/rain, flooding, erosion) causes erosion and embankment failure and flooding
- Inadequate staffing

### RISK MANAGEMENT STRATEGY

- Pursue federal and state money for bridges in poor condition
- Inspect and post weight limits
- Manage life line routes
- Remove dangerous guardrails
- Inspect levees, repair within budget capabilities
- Look for hazard mitigation funds
- Access past inspection reports and develop annual inspection program
- Develop funding partnerships, and seek disaster relief funding



### ASSETS IN GOOD / FAIR CONDITION

84% Current → 75% Scenario 2A or 76% Scenario 2B



### ASSETS IN POOR CONDITION

16% Current → 25% Scenario 2A or 24% Scenario 2B



# Dashboard Document Control



## Document ID: Tillamook County - Structures (Bridges)

Version No.	Creation Date	Revision Details	Author	Reviewer	Approver
V1 140204	29 Jan 2014	Creation of Dashboard with information provided by PBS and Tillamook County; (4 Feb 2014) applied edits provided by PBS via email on 1 Feb 2014	KA	KA	
V2 140210	10 Feb 2014	Applied formatting edits only, no data changes made.; (4 Feb 2014) applied edits provided by PBS via email on 1 Feb 2014. Updated risk and responses and review (7 Feb 2014)	KA, CL	PBS, JRA	
V3 140213	12 Feb 2014	Updates to C/F/C and NAMS outputs. Edits as per comments from PBS (received 11 Feb 2014). Minor formatting edits to "Key issues" on page 1 as per PBS edits	CL	PBS	
V4 140219	17 Feb 2014	Applied multiple formatting, and data changes per "Review with Client" edit document provided. Updated pie charts and figures to reflect 2 scenarios	KA, CL		
V5 140307	7 Mar 2014	Update capacity pie chart to reflect no change over 10 years	CL		
V6 140313	13 March 2014	Final edits following client review—font size & color	PBS		

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