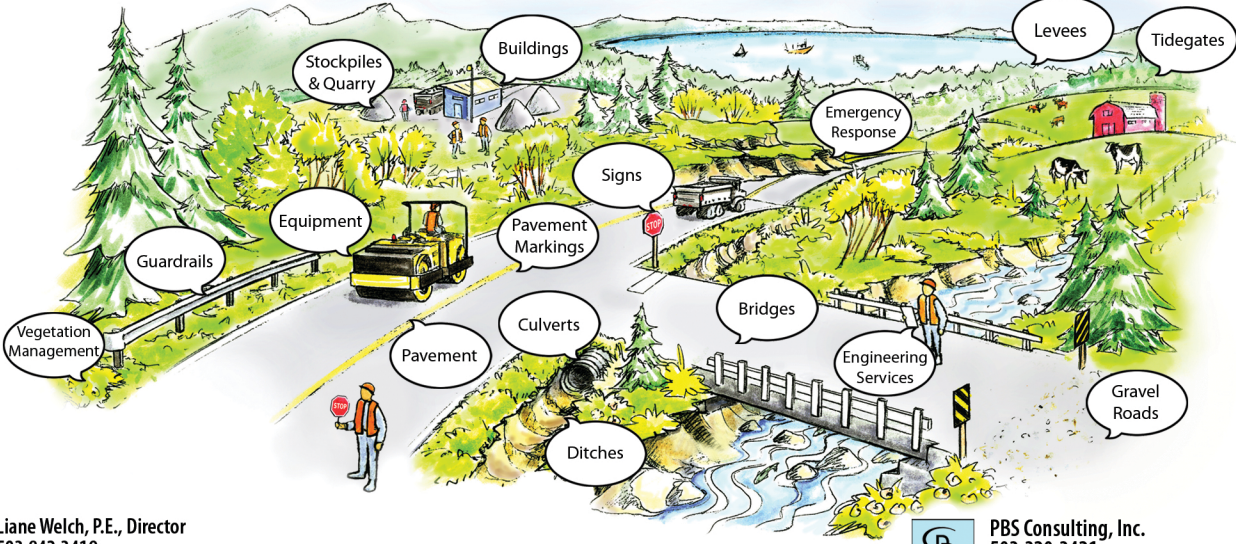




Tillamook County Road Department Performance Report FY 2016

Your Tillamook County Road Dollars At Work
\$859 Million Road System Value in 2016



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| Version | Change | Changed by | Reviewed by | Approved by and date |
|--------------|--|------------|------------------------|----------------------|
| V.1 | Initial Draft Report | PBS | LW, JS | December 9, 2016 |
| V.2 | Draft report – corrected Risk Trend table graphics and added page summarizing Staffing Risks and Risk Response | PBS | | December 12, 2016 |
| FINAL | Incorporates various edits including bridge names in Poor condition, equipment narrative & updates to appendix listing 2016 equipment in Poor condition; corrects report footer format | PBS | LW, JS, CL, CRAC, BOCC | December 28, 2016 |
| FINAL, Rev.1 | Change Traffic Safety risk Consequence to 4 and Traffic Safety Non-Regulatory Signs and Pavement Marking services to Medium Risk | PBS | LW, JS | January 10, 2017 |



Public Works Road Department

Report of the Director

The Presidential Federally declared storm event in December 2015 wreaked havoc on an already fragile Tillamook County transportation system. We have estimated that this storm caused \$8 million in damages across Tillamook County. This storm impacted our budget and the condition of our transportation system for years to come. One reason is that FEMA pays for 75% of damage and requires a 25% local match from the Road Department. Federal Highways pays for 90% of damage with a 10% local match. We will prioritize funds to provide these matches but given other system demands, it will take time and this reduces road maintenance funds.

We have made good decisions with the General Obligation Bond funds and the Transient Lodging Tax (TLT) funds the Voters passed in 2013 and 2014. In 2012 we had as many roads in good condition as in poor condition. The trend for 2016 is that we have more roads in good condition (56%) than we have in poor condition (43%). We continue to treat our pavements with a "Mix of Fixes," which means we maintain roads in good condition to keep them in good condition and rebuild roads that are in poor condition, which have significantly different costs. Based on the current and projected funding, we expect a decline in the pavement conditions, even with good decision making.

We continue to leverage the Road Department funds to apply for grants and other funding opportunities offered by state, federal, and local watershed sources. In 2016 we leveraged \$6.8 million of "other" money to match our local funds. This is mostly federal money for bridge replacements. However, this also includes our partners' (US Fish and Wildlife, Oregon Watershed Enhancement Board, and US Forest Service) funds to replace undersized culverts in poor condition with structures that meet fish passage criteria. Developing partnerships with our local watershed councils, other government agencies and non-profits has successfully benefited the Road Department, and we will continue with these positive relationships.

We continue to have a staff of 22 for the Road Department. This is one of our greatest risks: not having enough staff to meet critical needs in the system. We have many skilled, experienced Road Department employees. We need to work on an employee succession plan to make sure that we have adequately trained staff as we look at many retirements in the next couple of years.

Drainage is another risk that the County faces with over 90 inches of annual rainfall and severe winter storms. With over 3,200 culverts and 195 miles of drainage ditches that constantly need replacing and maintenance, it is difficult to meet the needs of drainage maintenance. We developed a 10 year strategic bridge maintenance plan in 2014. We have not been able to keep pace with all of the recommendations based on funding and staff.

We continue to work on safety projects for the County: a new alignment for Cape Meares Loop, a 2nd access out of Neskowin, and working with our federal partners to repair the damage from the December 2015 storm. We appreciate the community's commitment to transportation demonstrated by their support of local funding measures and will work to continue to improve our services.



Public Works Road Department Asset Management Strategy & Financial Summary

Asset Management Strategy

The Tillamook County Road Department manages the County road system. We become more knowledgeable about our transportation network each year. The overall transportation system is now valued at \$859 million. Over 40% of County transportation assets are in poor / very poor condition. The risk management strategy used is called “a mix of fixes.” This means that some roads and bridges have fallen into a state of disrepair which require major rehabilitation or complete replacement, even while preventive maintenance is our long term goal.

The cashflow from the 10-year General Obligation bond passed in 2013 varies widely year to year in compliance with federal regulations. This will impact the availability of funds for road, culvert and bridge maintenance and improvements. There will be less revenue over the next 5 years. Local revenues (bond and Transient Lodging Tax) made up 44% of FY2016 road revenues. Funding remains insufficient to meet road service needs over the next 10 years. The Road Department will continue to use risk-based decision making to set priorities and will seek opportunities to partner with key stakeholders and apply for grants that augment resources.

Risk Management Strategy – Mix of Fixes

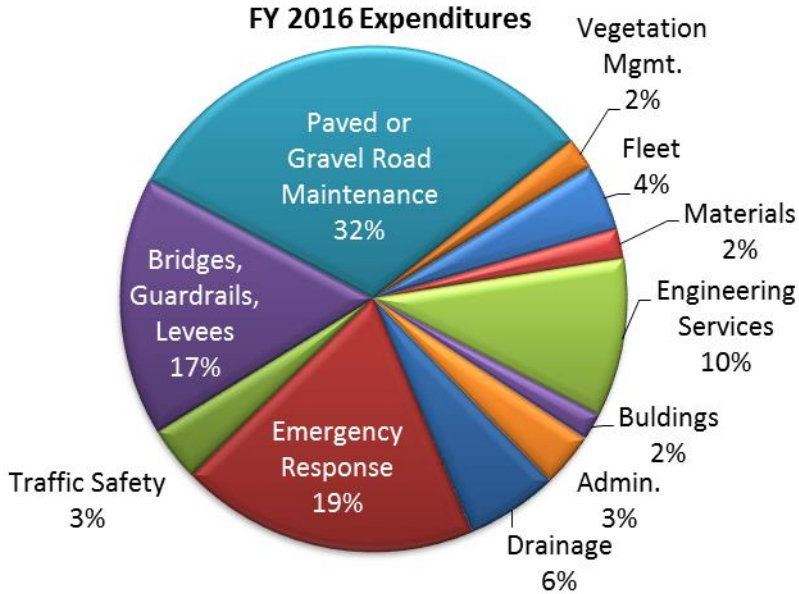
- *Do preventive pavement maintenance*
- *Increase bridge maintenance*
- *Increase drainage maintenance*
- *Increase culvert inventory, levee assessment and building maintenance programs*
- *Continue to do reactive maintenance with focus on safety*
- *Slow system deterioration; stabilize the rate of failure*
- * Identify additional funding through partnership & grants*
- *Continue to communicate critical failures with the Board and community*

What did we accomplish this year?

In 2016 the Road Department focused on economic development routes and moved into the neighborhoods Countywide for safety and emergency response. The Department is committed to continuously improving the skills, tools and business processes that support County road services including Emergency Response, Roadway and Traffic, Structures, Drainage, and support (Equipment and Buildings) services. Unit costs are updated each year to determine the cost of service and replacement value of the system. Visual inspections verify asset performance and the accuracy and completeness of information is updated and reported. Resources are allocated to manage high risks given available funding and community priorities.

Specific 2016 **improvements** include:

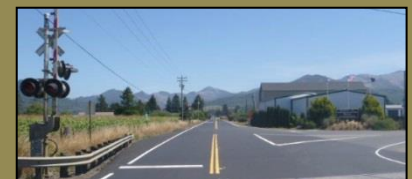
- Partnerships with federal, state and regional agencies are continuing to leverage County projects. This includes participating in the Sister County partnership with Umatilla County for response to the Cascadia Earthquake, and the Salmon Super Highway Community Project that is gaining momentum to replace culvert fish barriers in the Nestucca and Tillamook Bay.
- The Road Department received the 2016 Oregon Chapter of APWA Project of the Year Award for Structures Less than \$5 million and the 2016 Oregon Emergency Management (OEMA) Sister Community Partnership Award



2016 Oregon Chapter of APWA Project of the Year Award for Structures Less than \$5 million
2016 Oregon Emergency Management (OEMA) Sister Community Partnership Award

Specific **achievements** include:

- Building 3 temporary bridges in 7 days in response to the December 2015 storm
- Paved 9.42 miles on economic development routes and in neighborhoods countywide with a focus on safety and emergency response. This included: Long Prairie Road, Slab Creek Road, Foss Road, Miami River Road, 5th and 6th Streets in Neahkahnie, Neahkahnie Road, Nearnay City Road
- Initiating Lommen Bridge reconstruction, which includes a base isolation system for seismic resiliency
- Rehabilitating Goodspeed Bridge
- Replacing culvert on Bixby Road
- Adding bridges as culverts were replaced - George Bridge in 2015, Sifford Bridge in 2016
- Receiving funding for engineering Curl Bridge in 2020
- Continuing geotechnical analysis and alternatives for large active landslide areas (Cape Meares Loop Road)
- Managing vegetation on 573 miles of County roads and mowed and removed brush along County roads
- Continuing emergency preparedness for managing Cascadia earthquake “Filling the Void of Leadership” and Neskowin emergency egress design
- Responding to 580 service requests
- Engineering Department permit support
 - Reviewing and approving 176 road approach and utility permits
 - Reviewing 19 Department of Community Development permits
- Purchasing a used bulldozer
- Crushing rock in 2015 and cleaning up the quarry in 2016 to ensure good quality rock is used on County road projects
- Performing some critical repairs on Road Department buildings
- Conducting a community workshop to set Road Department priorities based on risk management
- Inspecting 6 levees before and after the December 2015 storm



Long Prairie Road – During & After Paving Rehabilitation

The County continues to be successful obtaining federal and state grants. An additional \$6.8M was funded by ODOT & partners for County transportation projects in FY 2016.

| \$6.8M was funded by ODOT & Partners State and Federal Funded Projects on County Roads in 2016 | | |
|---|---|--------------------|
| Cape Meares Loop | Geotechnical Study | \$1,006 |
| Lommen Bridge | Bridge construction | \$4,703,870 |
| Emergency Relief - Resort Drive MP 1.3 (FHWA) | Slope failure design | \$204,665 |
| Emergency Relief - Resort MP 2.1 (FHWA) | Slope failure design | \$203,669 |
| Wyss Bridge | Bridge construction | \$904,515 |
| Sand Lake Road 10.5 | Culvert replacement | \$149,423 |
| Whalen Island Bridge | Bridge replacement design | \$413,330 |
| Subtotal | | \$6,580,477 |
| Other partners' funds for County Projects in FY 16* | | |
| Bower Creek | Culvert replacement with fish passage | \$136,619 |
| Moon Creek | Culvert replacement with fish passage | \$103,316 |
| Boulder Creek on Blankenship Road | Culvert design with bridge fish passage | \$25,000 |
| Subtotal | | \$264,935 |
| Total Partner Funded Projects | | \$6,845,412 |

*OWEB, Trout Unlimited, USFS, USFWS



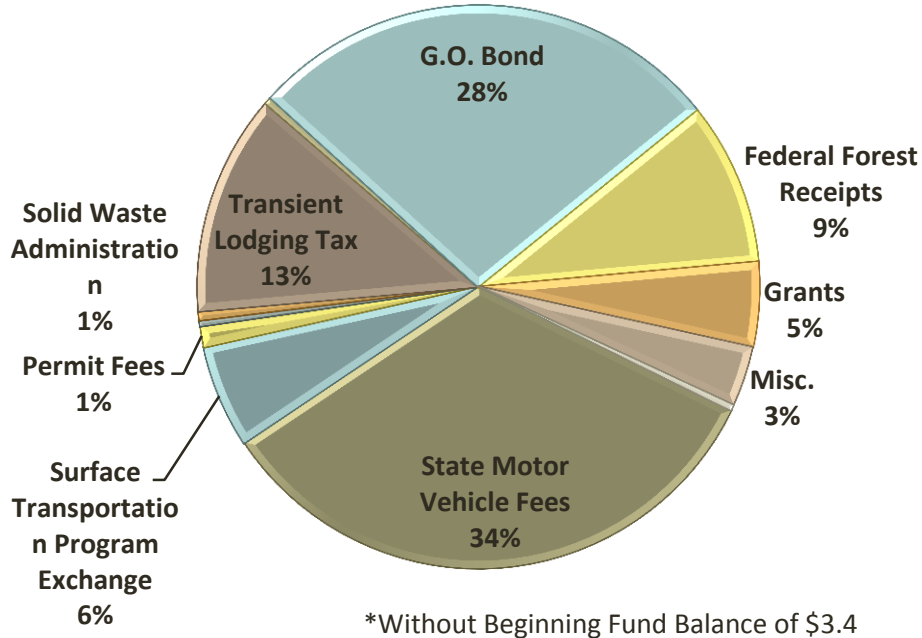
Lommen Bridge- Before



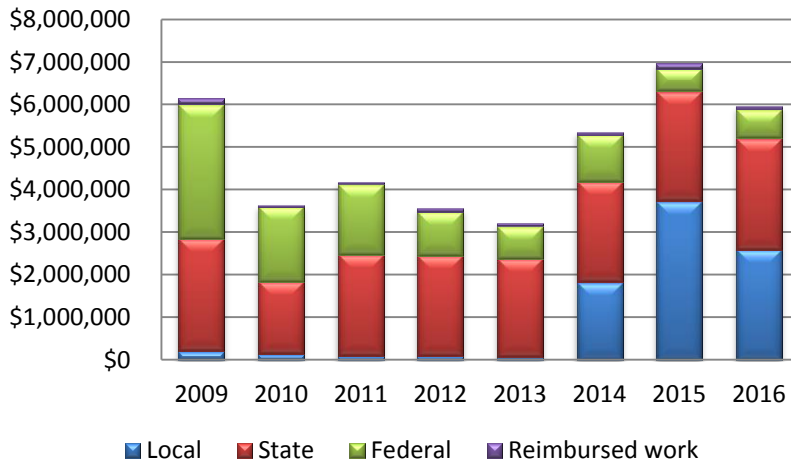
Lommen Bridge Replacement - During

Financial Summary

2016 Revenues \$5.9 Million



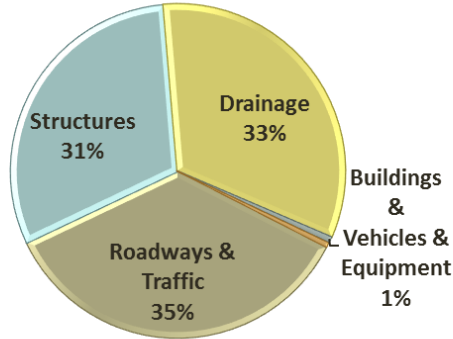
Local revenues are 44% of Road Revenues



Local revenues are making a difference but aren't enough to meet all needs. A local bond measure and Transient Lodging Tax approved in 2013 and 2014 make up 44% of Road revenues.

What does the County Road Department manage?

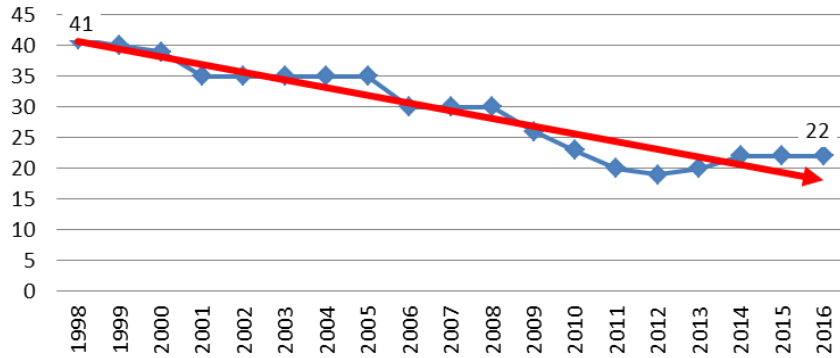
Tillamook County Road Network Value
\$859 Million



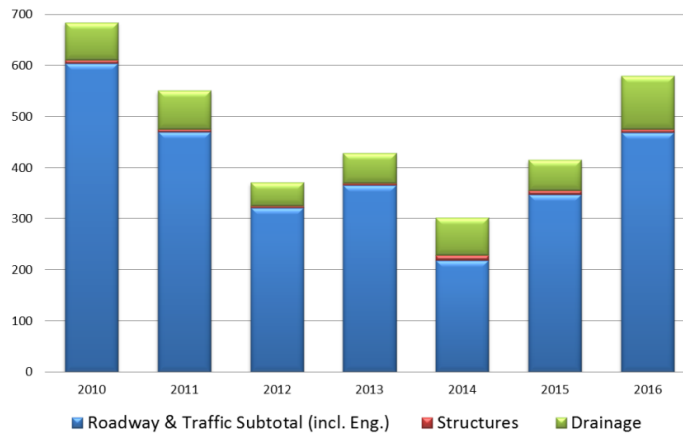
County Road Services

| Assets | Services |
|-----------------------------|---|
| 263 paved miles | Vegetation Management |
| 65 miles gravel roads | Traffic Safety |
| 102 bridges | Materials/Stock Piles management |
| 3,200 culverts | Service Request |
| 6 levees | Emergency Response |
| 5,045 signs | Engineering Services (permits & capital projects) |
| 392 miles pavement markings | Fleet Management |
| 10 miles guardrails | 15 buildings |

Staffing level has dropped 46%



Service Requests
2010-2016














Public Works Road Department Road Department FY 2016 Risks & Trends

On November 21, 2016, the Road Department Director and managers reviewed County road asset and service information, risks & management strategies with the BOCC, the CRAC, & County Department managers and citizens. (See Appendix A: Risk Workshop Attendees).

| Tillamook County Road Services & Assets - Risk, Performance & Legal Mandate | | | | | | | | |
|---|---|-------------|---------|---------|------------------------------|-------|---|--|
| Program | Subprogram | Risk Rating | | | Information Confidence Level | Trend | Comments | 2016 Service Requests |
| | | 2008 | 2010 | 2016 | | | | |
| Emergency Management | Roads, Structures, Drainage, Traffic Safety, Department Employees | Extreme | Extreme | Extreme | N/A | ↓ | Storm response is hard to predict, impacts the budget and wreaks havoc on an already fragile drainage system | N/A; emergency requests investigated immediately |
| Admin. Services | Staffing for cost accounting, budgeting service request & work management, Director, shop supervisor, foremen, equipment operators, work zone flaggers) | Extreme | Extreme | Extreme | N/A | ↓ | Currently 22 (46% decline over 19 years). There are not enough staff to meet critical needs in the system. A succession plan is needed to ensure trained personnel are available as retirements occur. | N/A |
| Drainage | Culverts, ditches & shoulders | High | Extreme | Extreme | 2-Low | ↓ | 22% culvert condition known; catastrophic failures during storms; replaced several culverts; No ditching program; 93% require some maintenance & 31% in Poor or Very Poor condition | 18% |
| Roads | Arterial & collector paved roads | Extreme | Extreme | High | 5-Optimal | ↔ | Average network condition stabilized at Fair condition (PCI 55); Inadequate funds to achieve Good condition or prevent future decline; in 5 years with current funding condition will decline to 48PCI or Fair. | 48% |
| Veg.Mgmt | Spraying & mowing roadsides | Extreme | Extreme | High | N/A | ↓ | Inadequate resources to maintain regular maintenance; not meeting customer expectations | 13% |
| Structures | Bridges | High | High | High | 5-Optimal | ↔ | Bridge condition stabilized; 7 bridges in process of replacement; insufficient funds to maintain bridges at rate of Bridge Program; 2 bridges added in 2015 & 2016 ; 13 bridges in Poor condition; 1/2 mile vegetation removal needed on levees | 1% |
| Equipment | Fleet & Equipment | Extreme | Extreme | High | 4-High | ↓ | 27% Level A (Preventive Maintenance) performed; 2/3 fleet budget spend on repairs; Shop Foreman and crew in field | N/A |

| Tillamook County Road Services & Assets - Risk, Performance & Legal Mandate | | | | | | | | |
|---|--------------------------------|-------------|---------|--------|------------------------------|--|--|-----------------------|
| Program | Subprogram | Risk Rating | | | Information Confidence Level | Trend | Comments | 2016 Service Requests |
| | | 2008 | 2010 | 2016 | | | | |
| Engineering | Engineering services | Medium | High | High | N/A |  | Engineering staff reduced in 2010; reduced ability to review residential & utility permits in timely manner; project and contract management primarily performed by Director | N/A |
| Facilities | Maintenance Yards | Low | High | High | 2-Low |  | Perform critical maintenance and repair; inspect buildings quarterly for safety; pay utilities; clean up yard. Buildings exceed useful life. | N/A |
| Roads | Gravel roads-county maintained | High | High | Medium | 2-Low |  | Reactive gravel road maintenance; inadequate staff to provide regular maintenance | 7% |
| Structures | Guardrails | Medium | Medium | Medium | 3-Moderate |  | No guardrail program; reactive replacement only. 2007 inventory & condition assessment; 43% in Poor condition | 0% |
| Traffic Safety | Signs-Other | Medium | Medium | Medium | 3-Moderate |  | 95% stop signs in Good condition; 20% nighttime visibility of signs assessed | see Signs |
| Structures | Levees | TBD | Medium | Medium | 3-Moderate |  | 2016 condition assessed; general assessment as Minimally Adequate; 1/2 mile of vegetation removal needed; Complete Emergency Assess Plan | 0% |
| Materials Mgmt. | Quarries | High | High | Medium | 4-High |  | Need to modify DOGAMI permit and crush more aggregate | N/A |
| Traffic Safety | Pavement markings | High | High | Medium | 5-Optimal |  | Re-painted annually; Marion County contract | 0% |
| Traffic Safety | Signs-Regulatory (stop signs) | High | Extreme | Medium | 3-Moderate |  | 100% stop signs in Good condition; 20% of signs assessed for nighttime visibility | 7% |



Emergency Response

Performance Measure:
Service Requests response.

Emergency Response Management Strategy

Prepare for and respond to weather events and hazards to ensure a safe county road network. Work in partnership with federal, state and county emergency responders.

Service Level Target

Investigate and quickly respond to weather events and hazards. Eliminate critical bridges and culverts; and inspect bridges and levees before and after weather events.

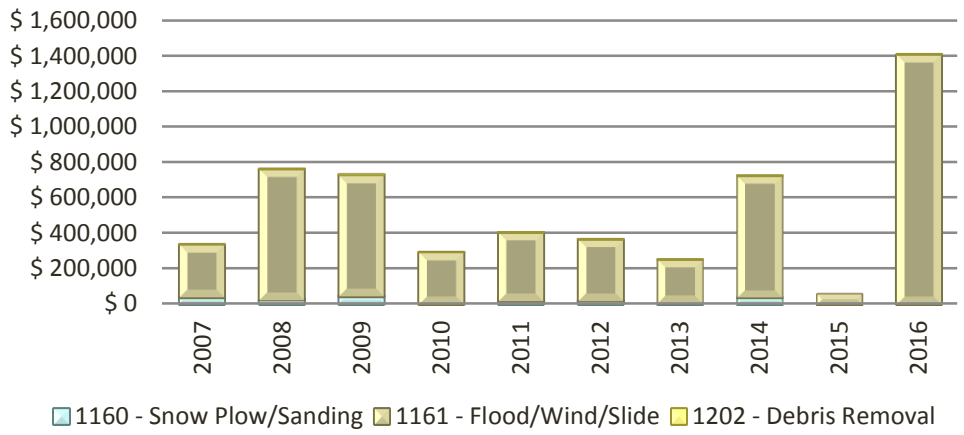
Current Service Level

Investigate 100% of emergency service requests. Reduce hazards as a high priority. Inspect critical bridges, culverts and levees before and after weather events.

Current State

Storm response and ensuring the traveling public’s safety on County roads is the Road Department’s highest priority. Emergency Response expenditures are hard to predict and were up significantly in FY 2016. 19% of Road revenues went to storm response in 2016.

Emergency Response costs increased dramatically following December 2015 storm



Emergency response is rated an Extreme risk given the wet climate and frequency and severity of storms. Safety projects for the County continue as a high priority including: a new alignment for Cape Meares Loop, a 2nd access out of Neskowin, and earthquake/tsunami preparedness.

Following the December 2015 storm, \$8M in damage occurred to the County road system. Three temporary bridges were built in 7 days following the storm. Permanent replacements are only partially funded with federal emergency dollars and require local match which has a significant impact on the Road Department budget & staff. Permanent recovery & repairs are ongoing as performed as funding allows. Timing for completion of the state and federal process is unknown.

Bay Ocean Road



Before



After

Harbor View Drive



Before



After

Emergency Response Risks

- 1 Wet climate/storm damage reduces asset life, increases life cycle costs and diverts planned maintenance and renewal funds to reactive storm damage repairs
- 2 Insufficient funding for road resurfacing will allow water to enter the pavement resulting in pavement failures and avoidable and expensive reconstruction.
- 3 Roads inundated by plugged or deteriorated culverts

Risk Response

- 1 Develop and regularly review appropriate emergency response capability
- 2 Respond to storms
- 3 Respond to landslides and 911 callouts
- 4 Participate in statewide emergency preparedness initiative for the Cascadia earthquake "Filling the Void of Leadership"
- 5 Design Neskowin emergency egress route
- 6 Target key emergency response vehicles (e.g., snow plows) for safety, maintenance and repair

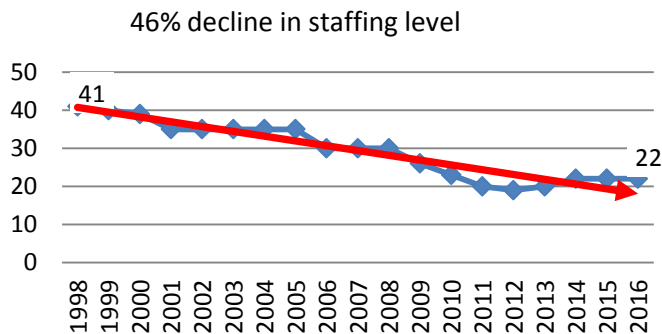


Staffing

Administration Performance Measure: *Administrative costs as a percent of total expenditures.*

Employee Staffing Levels

Staffing levels at the Road Department are rated an Extreme risk. There has been a 46% decline in the Road Department employment, from 41 to 22 employees. At the same time, ongoing Road Department expenditures, including the Road Department's success in obtaining grant funding from local, state and federal partners, has increased. Administrative costs are 3% of total budget when 8% is typical.



There is decreased ability to perform preventative maintenance on Road Department equipment, or keep pace with the growing inventory of County bridge maintenance. Drainage of the roadway is rated an extreme risk. There is only a reactive ditching program due to inadequate staffing levels.

The Road Department received recognition in 2016 for its safety-conscious work environment which has benefited the County in low Worker's Compensation claims and rates. However, the limits of planned and unplanned staff absences are affecting the ability to assign crews safely which impacts overall Road Department productivity. The Director serves 3 roles usually filled by three engineers in other Oregon coastal counties: director of the Road and Solid Waste departments, and County engineer managing over 20 projects in 2016.

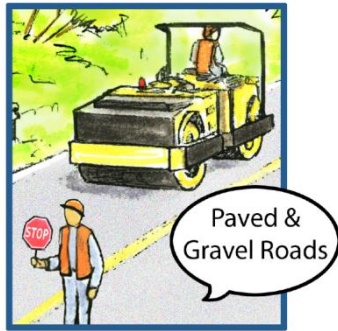
Risks

- 1 There are not enough staff to meet critical needs
- 2 The Department is losing the ability to know about system condition
- 3 The Shop Foreman and crew are assigned to field work making equipment maintenance difficult
- 4 The Director acts as Public Works Director, Solid Waste Administrator & County engineer which is an unsustainable work load

Risk Response

- 1 Assign Shop Foreman, crew and office staff to field work
- 2 Reduce ongoing work to reactive level of service (e.g., vegetation management, bridge maintenance)
- 3 Hire more field staff from ongoing budget, reduce level of other services
- 4 Examine impacts of reassigning Solid Waste division to other County department
- 5 Develop a succession plan that ensures adequate training for staff as retirements occur in the next couple of years

Roadways & Traffic – Pavement Condition



Performance Measure:
Percent of pavement in Fair & Good condition

Pavement Management Strategy

Ensure roads are safe to travel on throughout the County. Reduce expenses by maintaining roads in Good and Fair condition. Long term, continue to improve the County road system’s average Pavement Condition Index (PCI). This slows deterioration long term. Rehabilitate the roads so that we can do more preventive maintenance. This extends the road life and reduces the lifecycle cost of paved roads.

The focus for use of road revenues is: provide small patches Countywide to hold the system together (2014), focus expenditures on high speed, high volume roads and those that provide economic value to the community (2015), and focus on economic development route & move into the neighborhoods Countywide for safety and emergency response (2016). Inspect all roads every other year and respond to service requests, as resources allow. Where it makes sense, reduce the road inventory through jurisdictional transfer. Improve pavement workmanship and pavement equipment. Partner with other Counties for traffic marking services and share equipment when practicable.

Service Level Target

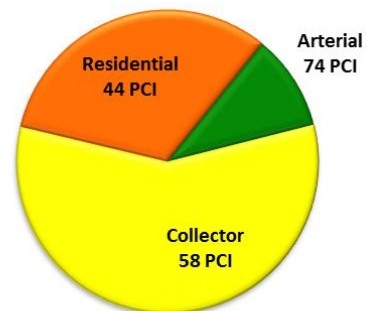
Working with the Board of County Commissioners and the Road Advisory Committee, the pavement service level that is appropriate for our community is reviewed annually. The target is to maintain roads in Good condition (80 Pavement Condition Index).

Current Service Level

In 2016 the average pavement condition is Fair or rated 55 Pavement Condition Index (PCI). Arterial roads (10% of the system) are in Good condition, Collector roads (55% of the system) are in Fair, and Residential roads (35% of the system) are in Poor condition.

2016 Road Network Miles & Condition

| Condition | Pavement Condition Index |
|-----------|--------------------------|
| Good | 70-100 |
| Fair | 50-70 |
| Poor | 25-50 |
| Very Poor | 0-25 |

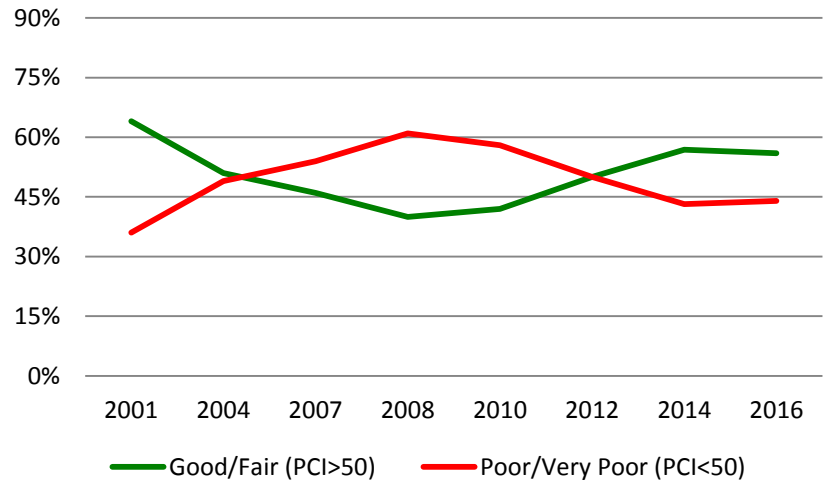


Current State

Pavement condition has been stabilized and is in Fair condition (55 PCI). Funding is not sufficient to maintain this condition.

County paved roads are inspected every other year. Roadways are the County's most valuable asset with a replacement value of \$301M.

Pavement condition has been stabilized 2001-2016



Road Revenues Improved Paved Roads Countywide

In 2016 one-third of the County's transportation budget (\$2.3 million) was used to manage County paved roads. The Road Department focused on economic development routes & moved into the neighborhoods Countywide for safety and emergency response. 9.42 road miles were paved in 2016.

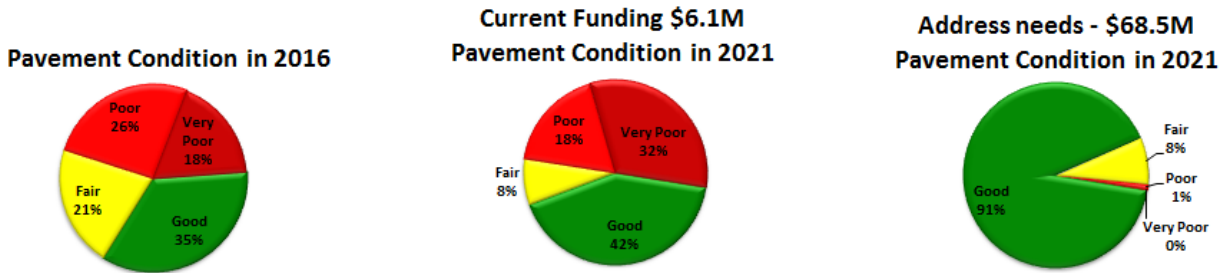


Cape Kiwanda Solar Pedestrian Lights

9.42 road miles were paved Countywide

| | |
|-----------------------------------|---------------------------------------|
| Long Prairie Road | 5th Street, Neahkanie |
| Slab Creek Road, Paving | 6th Street, Neahkanie |
| Foss Road | Neahkahnne Road |
| Miami River Road | Nearney City Road |
| N. Fork Road | South Prairie Road |
| Lommen Overpass Bridge | Circle Drive |
| Nehalem Road | Hodgdon |
| The Promenade | 3 rd Street/Olsen/Fairview |
| Hillcrest | Whiskey Creek Road |
| Indian Gap | Deer Road |
| 2 nd Street, Neahkanie | 5th Street Loop |
| 4 th Street, Neahkanie | |

County paved roads are considered a High risk. \$68.4M is needed to bring pavements to Good condition. The County has \$6.1M over the next 5 years to manage pavement roads. The average pavement condition will decline from Fair to Poor condition by 2021.



Regulatory signs (stop & warning) are a high priority and are in Good condition. Reflectivity for 20% of signs was measured in 2016. Pavement markings are re-painted each year.

Risks for Roadways & Traffic

- 1 Insufficient funding for resurfacing allows water to enter the pavement resulting in pavement failures and avoidable and expensive reconstruction
- 2 Poor historical construction standards for many pavements mean that when they fail reconstruction becomes very expensive
- 3 Lack of timely maintenance
- 4 Wet climate/storm damage reduces asset life, increases life cycle costs and diverts planned maintenance and renewal funds to reactive storm damage repairs.
- 5 Poor drainage
- 6 Insufficient construction inspection
- 7 Increased traffic loads
- 8 Vegetation impact

Risk Response

- 1 Mix of Fixes: Rehabilitate roads so that preventive maintenance can be performed on roads in Good and Fair condition
- 2 Focus on economic development and move into the neighborhoods Countywide for safety and emergency response.
- 3 Rate condition every other year and respond to service requests
- 4 Reduce the road inventory through jurisdictional transfer where possible
- 5 Improve road drainage
- 6 Improve workmanship and equipment
- 7 Partner with other Counties for traffic marking services and share equipment if possible
- 8 Maintain regulatory signs (stop & warning) in Good condition. Continue to assess reflectivity of signs and repaint pavement markings each year



Structures - Bridge Condition

Performance Measure:
Percent of bridges in Fair & Good condition

Structures Management Strategy

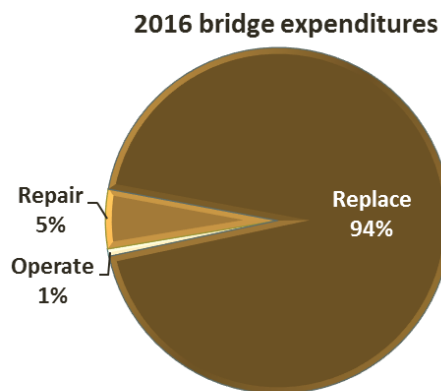
A Mix of Fixes. Maintain bridges in good condition by performing preservation and cyclic maintenance; seek funding partners to replace bridges with Sufficiency Rating less than 50%; inspect bridges every other year; perform levee inspections before and after storms and maintain revetment vegetation; repair and replace guardrails as a part of ongoing road projects and crash insurance claims.

Service Level Target

Replace 20 bridges by 2029 (two per year for 15 years or \$610,000 annually), then replace 4 bridges every 3 years. Perform one major bridge rehabilitation project every year (\$250,000). Perform cyclic bridge maintenance (joint replacement) on five bridges/\$25,000 annually following initial investment of \$35,000 to address backlog; and resurface 4 bridges/\$48,000 annually following initial backlog catch up of \$300,000. Conduct annual bridge maintenance (\$25,000) following initial investment (\$49,000) to address signage, clean debris, remove drift & vegetation, repair damage or missing hardware on railings.¹

Current Service Level

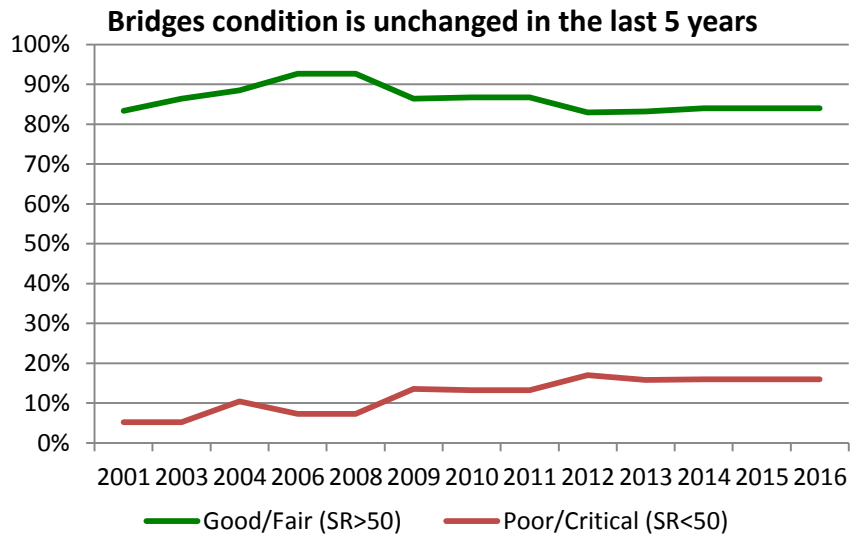
Seven bridges are either in the design phase or in the process of replacement, and one bridge, Goodspeed Bridge was repaired. There is insufficient staff to implement the Bridge Maintenance and Preservation Program's recommended level of bridge replacement, maintenance and repair, or to match grants. One-fifth (\$1.3M) of the Road Department budget was used to manage bridge, guardrail and levees in 2016.



¹ Tillamook County Strategic Bridge Program Plan, OBEC, May 2014.

Current State

Bridges have a replacement value of \$262M. The majority of the 102 County bridges are in Good or Fair condition. However, 16% are in Poor or Very Poor condition; this is unchanged from 2015. There is not enough staff to perform bridge maintenance or sufficient funds to match bridge replacement grants.



The County's 6 levees are critical to managing flooding from frequent and intense weather events. Levees are in Minimally Acceptable (Fair) condition. One-half mile of vegetation management was identified in 2016. Levees are inspected by the Corp of Engineers with the County every 2 years and by the County before and after major storms.



There is insufficient staff to inspect and replace County road guardrails. Almost half of the County's 10 miles of guardrail are in Poor/Very Poor condition. Guardrails are replaced after crashes and insurance reimbursement is collected, or as a part of bridge projects.

Bridges Repaired and Replaced

Lommen bridge construction began in November 2015 and is expected to be completed in 2017. Wyss Bridge replacement is almost complete. An intergovernmental agreement is now in place for reconstruction of South Fork Trask River Bridge (MP 13). Whalen Island Bridge is in design. Sifford Bridge was added to replace a culvert. The County repaired Goodspeed Bridge.

Seven Bridges Scheduled for Replacement

| |
|---|
| Lommen Bridge |
| Wyss Bridge |
| Cedar Creek Bridge |
| S. Fork Trask River Bridge (MP 13) |
| Holgate Bridge |
| Whalen Island Bridge |
| East Beaver Creek* |
| Curl Bridge (engineering approved for design in 2020) |

Bridges Repaired in 2016

| |
|--|
| Goodspeed Bridge |
| *Bridge currently closed due to road washout; the County plans to remove the bridge from the inventory and salvage the material. |



Lommen Bridge reconstruction



Isolation bearings in Lommen Bridge design will minimize damage to the bridge during major earthquakes



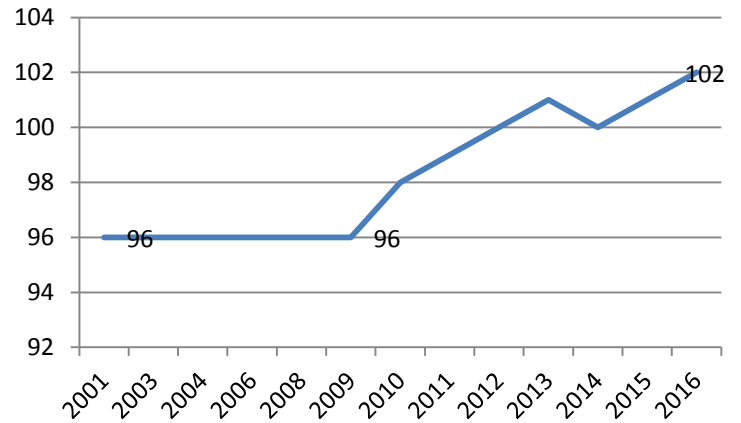
Goodspeed Bridge Repair

Bridges are being added as culverts are being replaced, which adds to the bridge inventory - George Bridge in 2015, Sifford Bridge in 2016.



Sifford Bridge replaces a culvert

Since 2009, the bridge inventory increased 6%



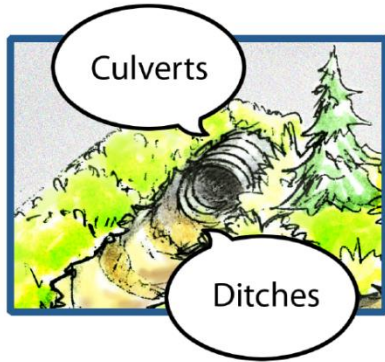
Structures Risks

- 1 Inability to keep pace with funding the *Strategic Bridge Plan* recommendations
- 2 Future bridge condition will deteriorate given available funds
- 3 Failures during natural disaster events may lead to restricted use of bridges and detours or community isolation
- 4 Restrictions on load/dimensions of use
- 5 Guardrail failure caused by poor design, landslide and vehicle impact, storm damage
- 6 Levee failure due to erosion, embankment failure which may cause flooding

Risk Response

- 1 Implement the *Strategic Bridge Plan* as resources allow
- 2 Pursue federal and state money for bridges in Poor condition
- 3 Perform bridge maintenance as funding allows
- 4 Inspect and post weight limits
- 5 Manage life line routes
- 6 Inspect levees, repair within budget capabilities
- 7 Access past levee inspection reports and develop annual inspection program
- 8 Develop funding partnerships, and seek disaster relief funding
- 9 Inspect levees before and after storm events
- 10 Repair guardrails after crashes and try to collect insurance reimbursement

Drainage - Culverts



Performance Measure:
Percent of culverts in Poor or Critical condition

Drainage Management Strategy

As paving lists are developed, inspect and replace culverts prior to paving. Continue to seek funding partners to replace culverts with fish passage facilities in all watersheds of the County. Replace culverts that are a high risk to the safety of the community.

Manage surface storm water and flooding by maintaining vegetated ditches that serve as drainage facilities, maintain culverts in the condition necessary to handle their design capacity, and where culverts carry streams, maintain them in a condition to provide fish passage by performing

- culvert and catch basin cleaning
- culvert replacement as funding partners are identified
- ditching
- erosion control using best management practices with regards to steep slopes, drainage ways and permitted activities.

Service Level Target

Drainage management strategic objectives are to:

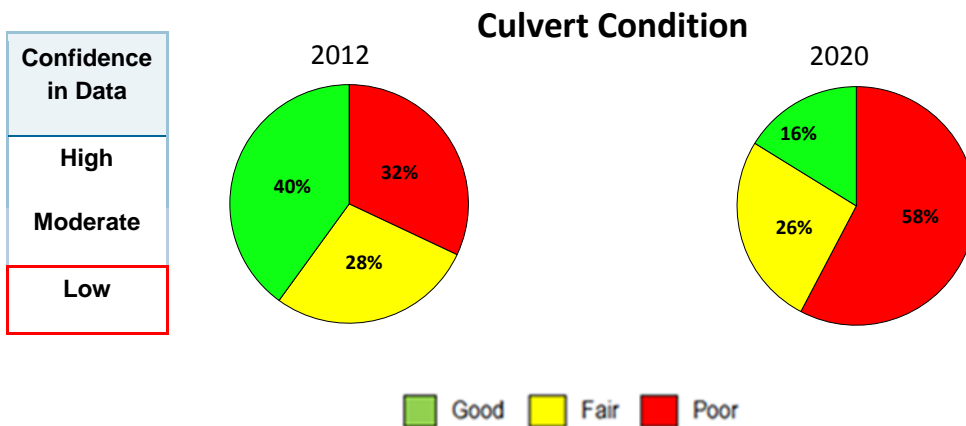
- provide and maintain adequate road drainage in order to prevent water damage to the roadway structure,
- protect the rights of adjoining property, and
- provide fish passage where mandated and as funding partners are identified.

Current Service Level: One-third of the estimated 3,200 culverts are in Poor condition and 30% of ditches are in Poor condition.

Current State

Drainage on county roads was rated an Extreme risk in 2016. The December 2015 storm wreaked havoc on an already fragile drainage system. We are not maintaining and replacing the 3,200 culverts or maintaining the 195 miles of ditches adequately. In 2016, the County replaced 718 lineal feet of culverts in Poor condition. This represents 1% of the inventory. A partial (22%) culvert inventory and condition assessment indicates that there are more culverts, the replacement cost is significantly greater, and culvert condition is worse than earlier estimates. The decline of TCPW employees has resulted in the elimination of a comprehensive ditching program for county roads. Ditching occurs on a reactive basis. 694 hours of ditching was performed in FY 2016, half the hours of ditching performed in 2015. Ditches will be inventoried and their condition inspected in 2018 as a part of the pavement inspection contract.

It is estimated that by 2020 two-thirds of all culverts will be in poor condition.



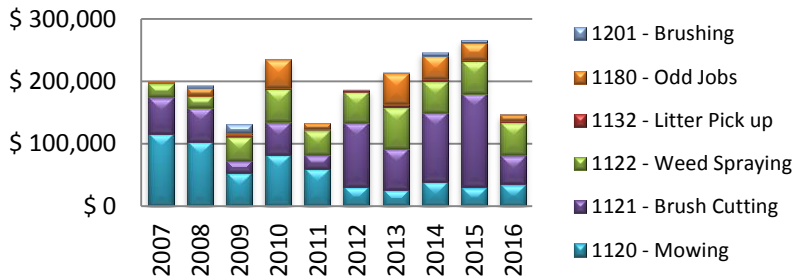
Drainage on county roads is critical given the wet environment and increasing frequency and severity of weather events. In 2016 culverts were replaced as needed along roads that were repaved, as culverts failed, and as funding partnerships were found in places with fish passage significance (Bixby Road & Sifford Culvert on Bower Creek).



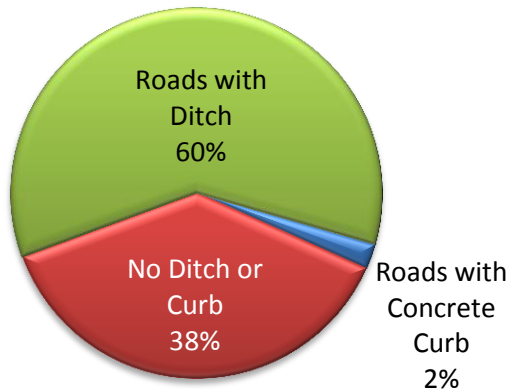
Bixby Road culvert replaced

Brush cutting and mowing needs are not being met. There are too few employees to meet all needs. 10% of all complaints are about brush and mowing needs. Jail crews do some brushing and mowing; this is paid from the Road budget.

2016 Vegetation Management Expenditures are down 45% due to lack of staff



60% of County Roads have ditches that need to be maintained



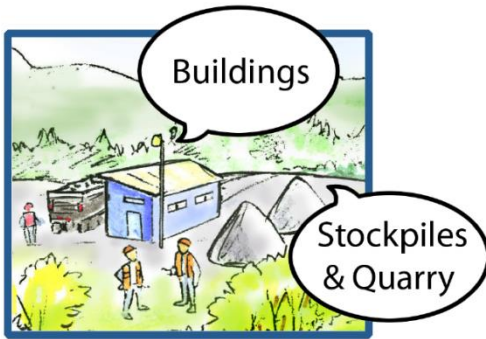
The County still lacks staff to have an active ditch cleaning program and continues to repair ditches in a reactive mode

Drainage Risks

- 1 Outdated inventory & condition assessment
- 2 Lack of mapped culverts
- 3 Roads inundated by plugged or deteriorated culverts
- 4 Inappropriately sized outfalls, beavers, undersized culverts, stormwater and salt water
- 5 Inadequate staffing to manage vegetation
- 6 Changing environmental regulations
- 7 Ecological impacts
- 8 Failure due to age
- 9 Poor construction techniques
- 10 Heavy vehicle loads
- 11 Inadequate funding to address critical culvert replacement
- 12 No active ditching program

Risk Response

- 1 Replace culverts prior to paving
- 2 Seek additional funding and partner with other agencies on high priority fish passage culvert replacements
- 3 Inspect additional portion of culvert inventory in FY 2016
- 4 Inventory & inspect condition of ditches in 2018 as a part of the pavement inspection contract
- 5 Perform vegetation mowing and brush cutting as funding allows
- 6 Report to Board on program costs & needs



Buildings

Building Performance Measure:
Percent of buildings in Poor or Critical condition

Building Management Strategy

Address the number, quality and location of TCPW buildings that influence the efficient and effective management of resources (labor, materials and equipment) used to deliver county road services.

Target Service Level To be developed.

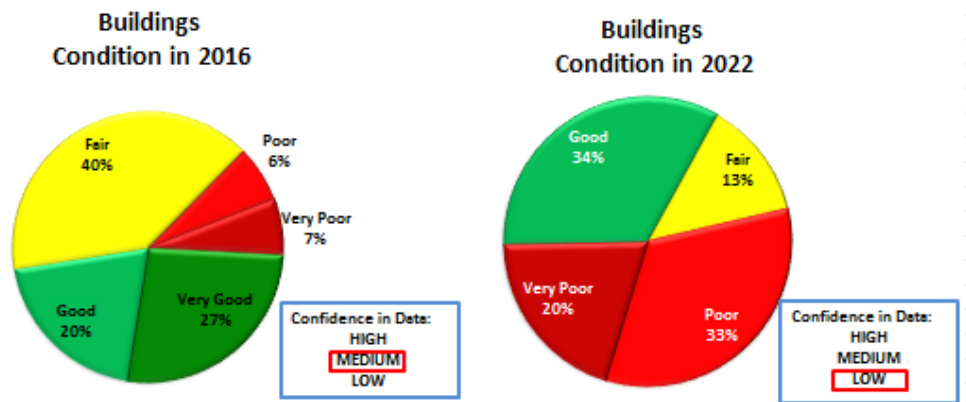
Current Service Level

In spite of some repairs, the investment in some buildings is being lost. Minor repairs were done on 5 buildings and some buildings were painted. Buildings are inspected quarterly for safety code violations.

Current State

Road Department buildings and quarries are a Moderate risk.

There are 15 buildings. Two buildings (13%) were in Poor condition in 2016. By 2022, an estimated 50% will be in Poor condition.



Quarry rock was crushed in 2015. Quarries were cleaned up in 2016 to ensure good quality rock is used. The quarry development plan revealed some criteria of the DOGAMI permit are not in compliance and reclamation in some adjoining areas may be required.



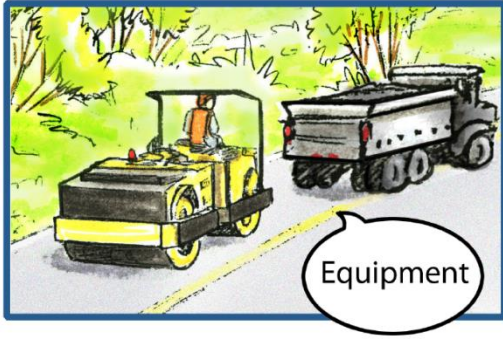
Quarry development at Clear Creek and Nehalem

Building and Quarry Risks

- 1 Buildings functionally is inadequate
- 2 Many buildings are in poor condition
- 3 Inadequate crushed rock

Risk Response

- 1 Address critical repair needs identified in the 2012 inspection, especially the Main Office
- 2 Conduct annual building inspection for OSHA health and safety code compliance
- 3 Communicate the need for additional resources to address overall Road Department facility needs
- 4 Maintain quarries and provide high quality and efficiently organized quarry materials for County road jobs.
- 5 Modify DOGAMI Permit and establish reclamation strategy for impacted areas



Vehicles & Equipment

Performance Measure:
Percent of vehicles with less than 50% useful life remaining

Vehicles and Equipment Management Strategy

Ensure availability and reliability of vehicles and equipment for road crews by providing timely maintenance and repairs. Replace critical equipment and vehicles to manage fleet at lowest lifecycle cost as funds are available.

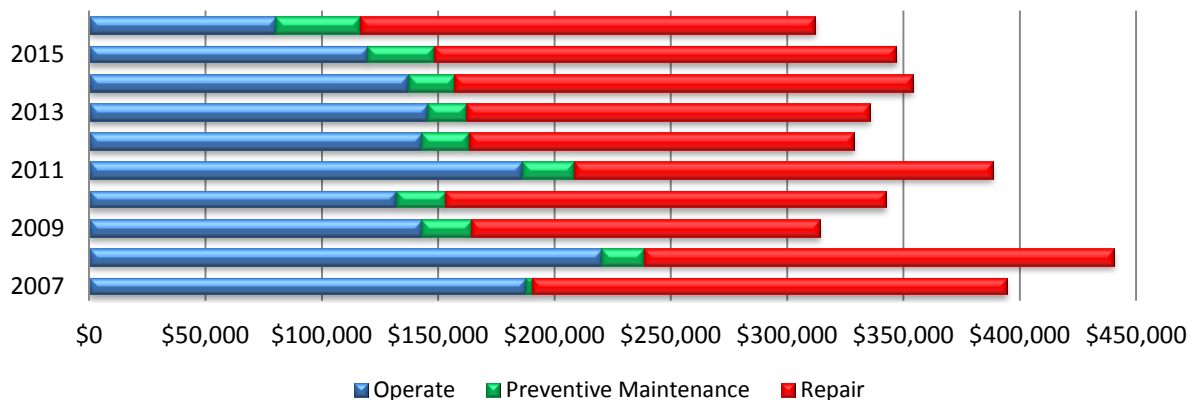
Target Service Level

Vehicles have 50% or greater remaining useful life. Perform preventive maintenance (Level A & B) on 100% of the fleet.

Current Service Level

Equipment management is a Moderate risk. The Public Works Department staffing levels are inadequate; the Shop Foreman and crew are assigned to field work during the paving season. The Road Department is falling behind on equipment maintenance. In Fiscal 2016, 77% percent of the County fleet received Level A preventive maintenance. Nearly 75% exceed the County's adopted useful life for vehicles. Sixty-six percent (66%) of all Shop expenses are for vehicle repair.

**Two-thirds of Shop expenses are for vehicle repairs
 Equipment Costs - 2007-2016**



The Shop Foreman manages equipment purchasing strategically. Equipment purchases and replacements target surplus equipment sales by other government agencies, take advantage of additional discounts on purchases made on certain days, and dispose equipment that has long-term maintenance needs. These tactics of buying used vehicles and targeting equipment purchases that increase work efficiency and effectiveness while reducing the number of high maintenance vehicles keep equipment management costs low.



The County purchased a used bulldozer in 2016

Thirteen pieces of worn out equipment that requires high maintenance will be sold.



Worn out equipment to be sold

Risks

- 1 77% of the County fleet received Level A preventive maintenance. There is an inadequate staffing level; the Shop Foreman and crew are primarily assigned to field work in the summer
- 2 Nearly 75% exceed the County's adopted useful life for vehicles.
- 3 66% of all Shop expenses are for vehicle repair
- 4 Some vehicle parts are not available and must be made in house.
- 5 Equipment reliability and safety is an increasing concern
- 6 Equipment may not be appropriate for all job requirements

Risk Response

- 1 Continue tracking time and hours of performance & maintenance cost per vehicle
 - 2 Report on need
 - 3 Auction vehicles not in use or with high maintenance costs
 - 4 Procure used vehicles and equipment that increase work efficiency and effectiveness
-

Appendix A - Setting Road Service Priorities: Risk Management Workshop Attendees November 21, 2016

County Board of Commissioners

Mark Labhart <mlabhart@co.tillamook.or.us>;
Tim Josi <tjosi@co.tillamook.or.us>;
David Yamamoto (yamamoto.david@gmail.com);
Bill Baertlein <bbaertle@co.tillamook.or.us> (absent)

County Road Advisory Committee

Curt Schonbrod, Chair <TraskForceCurt@gmail.com>;
Bob Garrigues <bg-capemeares@charter.net> (absent)
Darcy Jones <darcy_r_jones@hotmail.com>;
Gary Hanenkrat (garyhanenkrat@charter.net);
Gary Hercher <ghercher@hotmail.com>;
Gus Meyer (gusmeyer9@gmail.com); (absent)
Jerry Dove (jdovetillangers@gmail.com);
Paul Daniels <danielpaul353@yahoo.com>;
Sherry Newman <sherrynlbt@gmail.com>;

County Treasurer, Debra Clark <dclark@co.tillamook.or.us>;

County Community Development Director, Bryan Pohl <bpohl@co.tillamook.or.us>;

County Human Resource Director, Mona Hamblen <mhamblen@co.tillamook.or.us>; (absent)

County Road Department

Grant Graves <ggraves@co.tillamook.or.us>;
Rick Kjemperud <rkjemper@co.tillamook.or.us>;
Chris Loffelmacher <cloffelm@co.tillamook.or.us>;
Liane Welch <lwelch@co.tillamook.or.us>;
Jeanette Steinbach <jsteinba@co.tillamook.or.us>
Ron Newton <rnewton@co.tillamook.or.us>
Julie Kettner <jkettner@co.tillamook.or.us>

Citizens

Anne Price <neighboranne@icloud.com>; (South County)

PBS Consulting, Inc., Patricia Bugas Schramm' <patricia@pbsconsultinginc.com>;

Appendix B Assets in Poor or Critical Condition

Table B-1 Summary of Pavement Needs²

| | 2017 | 2018 | 2019 | 2020 | 2021 | Total |
|----------------------------------|--------------|-------------|-------------|--------------|-------------|---------------------|
| PCI with treatment | 79 | 79 | 81 | 84 | 84 | -- |
| PCI no treatment | 54 | 51 | 48 | 45 | 42 | -- |
| Budget Needs Total | \$38,395,557 | \$8,556,142 | \$7,526,640 | \$10,844,338 | \$3,140,339 | \$68,463,016 |
| Rehabilitation Portion | \$37,051,040 | \$8,556,122 | \$7,516,826 | \$10,692,436 | \$3,035,974 | \$66,852,398 |
| Preventative Maintenance Portion | \$1,344,516 | \$19 | \$9,813 | \$151,901 | \$104,364 | \$1,610,613 |

² Source: Capitol Asset & Pavement Services *Pavement Management Program Budget Options Report*, October 2016

Appendix B-2 Bridges in Poor and Very Poor Condition

| Name | Sufficiency Rating | Last Inspection Date |
|--------------------------|--------------------|----------------------|
| Lommen Bridge | 12.5 | 6/28/2016 |
| Cedar Creek Bridge | 13.6 | 6/13/2015 |
| Wyss Bridge | 17 | 10/12/2015 |
| East Beaver Creek Bridge | 20.3 | 6/14/2015 |
| Atkinson Bridge | 32.6 | 6/28/2016 |
| Fagan Bridge | 34.9 | 6/10/2015 |
| Moss Creek Bridge | 36.3 | 6/9/2015 |
| Whalen Island Bridge | 37.2 | 6/28/2016 |
| Keesling Bridge | 40 | 6/28/2016 |
| Makinster Bridge | 42.2 | 6/9/2015 |
| Tony Creek Bridge | 42.3 | 6/12/2015 |
| Lagler Bridge | 42.4 | 6/8/2015 |
| Yellow Fir Bridge | 45.5 | 6/14/2015 |
| Prince Bridge | 45.7 | 10/14/2014 |
| Husbeck Bridge | 46.1 | 10/12/2015 |
| Curl Bridge | 47.4 | 10/14/2014 |

Source: Integrated Road Information System; 160913 email from Jeanette Steinbach, Administration Specialist

Table B-3 Equipment in Poor Condition³

| Vehicle No. | Year | Vehicle Type | Why Failing | Replacement Cost |
|-------------|------|---------------|--|------------------|
| 548 | 1968 | Small paver | Too small/no available parts/misc. problems | \$ 175,000 |
| 603 | 1988 | Grader | 1988 Engine problems/parts/high hours 13,000 | \$ 150,000 |
| 166 | 1986 | 1 ton pick up | Parts/high miles/too small/old dump beds | \$ 40,000 |
| 167 | 1987 | 1 ton pick up | Parts/high miles/too small/old dump beds | \$ 40,000 |
| 168 | 1988 | 1 ton pick up | Parts/high miles/too small/old dump beds | \$ 40,000 |
| 147 | 1981 | Lowboy truck | At max for haul capacity/parts/reliability | \$ 75,000 |
| | | | TOTAL | \$520,000 |

³ Source: Integrated Road Information System; Chris Loffelmacher, Shop Foreman & Julie Kettner, Administration email 161026; updated by Chris Loffelmacher email 161227

Table B-4 Failing Culverts⁴

| Known Failing Culverts* | Estimated Cost |
|--|--------------------|
| Hobsonville Road | \$150,000 |
| Miami River Road MP 7.6 - Dry creek | \$800,000 |
| Miami River Road MP 8.8 - Crystal Creek | \$800,000 |
| Bay Ocean Road MP 2 - Dick Creek | \$500,000 |
| Trask River Road (fish passage) | \$500,000 |
| Sandlake Road-Jewel Creek | \$700,000 |
| Sandlake Road – Reneke Creek | \$500,000 |
| Cape Lookout Road | \$100,000 |
| Miami River Road | \$300,000 |
| North Fork Road (fish passage) | \$500,000 |
| Total | \$4,850,000 |
| *This is a small sample of the estimated 960 culverts in Poor condition. | |

⁴ Source: Integrated Road Information System, *Drainage Asset Management Plan*, 2012; confirmed & updated by 161025 email from Liane Welch, Public Works Director.

Table B-5 Tide Gates in Poor Condition⁵

| Tidegates in Poor Condition | | | | |
|-----------------------------|--------|-------|------|-----------|
| ROAD NAME | ROAD # | MP | SIZE | CONDITION |
| Burton Fraser | 748 | 0.465 | 12" | Very Poor |
| Burton Fraser | 748 | 1.495 | 36" | Very Poor |

⁵ Source: Tillamook County Road Drainage and Culvert Asset Management Plan, 2012.

Appendix C – Data Management Frequency, Standard & Responsibility

Table C-1 Data Management

| Asset Inventories | Data Management Process | | | | |
|------------------------------------|--|-----------------------|--------------------------------|----------------------------------|--|
| | Inventory? | Documented Condition? | Documented inspection process? | Established inspection schedule? | If yes, frequency? |
| Roads | Yes IRIS-SS and MTC Street Saver Program ⁶ | Yes | Yes | Yes | Every 2 years |
| Bridges | Yes PONTIS & IRIS | Yes | Yes | Yes | Every 2 years |
| Traffic Signs -reflectivity | Yes IRIS-RI | Partial IRIS-RI | Yes | Yes | Partial sign inventory relectivity (night time) inspection |
| Traffic Signs -maintenance | - | Yes IRIS-RI | Yes Report | No | As resources allow |
| Guardrail | Yes IRIS-RI | Yes | Yes | No ⁷ | - |
| Culverts | Yes (partial) IRIS-RI ⁸ | Yes (2006) | No | No | - |
| Ditches | Yes IRIS-RI (2008) | Yes | Yes | No | As resources allow; update in 2018 |

⁶ Pavement Management Program Budget Options Report, Capitol Asset Pavement Services, October 2016. The Metropolitan Transportation Commission (MTC) Streetsaver Pavement Management Program (PMP) was used for this evaluation

⁷ Guardrail condition is based on an inspection completed in spring 2007.

⁸ Drainage Asset Management Plan 2012; and additional 20% of inventory inspected in 2016.

| Asset Inventories | Data Management Process | | | | |
|-----------------------|-------------------------|----------------------------|--------------------------------|----------------------------------|---|
| | Inventory? | Documented Condition? | Documented inspection process? | Established inspection schedule? | If yes, frequency? |
| Pavement Markings | No ⁹ | N/A | N/A | N/A | N/A |
| Levees | Yes IRIS-RI (2009) | Yes | No | Yes | Every other year in conjunction with Corp of Engineers and before and after storms by Road Department |
| Maintenance Yards | No | No | No | No | - |
| Vehicles & Equipment | Yes IRIS-EM | Per preventive maintenance | Yes ¹⁰ | Yes | Continuous |
| Quarry sites | No | Yes ¹¹ | No | No | No |
| Vegetation Management | - | No | Yes | Yes ¹² | Annually |

⁹ Pavement markings are repainted by contractor (Marion County) one time a year with oil-based paint. An Excel spreadsheet notes the materials used, length of line and type to calculate materials.

¹⁰ Equipment Management tracks preventive maintenance performed by vehicle.

¹¹ Cost Proposal for Mining Plan Consultation Clear Creek Quarry and Nehalem Quarry Tillamook County, Oregon, September 2015.

¹² Vegetation management is performed routinely and spray reports comply with regulations.

Table C-2 Condition Assessment Method

| Asset Type | Inspection Method | Source of Management Standard | Condition Category | | Frequency | Performed by |
|----------------------------|-------------------|---|--------------------|--|--|---|
| | | | Technical Scale | Qualitative Categories | | |
| Road – Paved | Visual inspection | MTC Method | 0-100 | Good 70-100 Fair 50-69 Fair 25-4, Poor <25 | Every other year | Contract Inspection |
| Road – Unpaved | Complaint-driven | N/A | N/A | N/A | Per complaint | Foremen |
| Bridges | Visual inspection | National Bridge Inspection Standards (NBIS) | 0-100 | Good >80 Fair 51 - 80 Poor 30-50 Critical <30 | Every other year | Contract inspection |
| Guardrail | Visual inspection | Oregon Standardized Drawings | 1-5 | Very Good 1 Good 2 Fair 3 Poor 4 Very Poor 5 | No established cycle | TBD |
| Levees | Visual inspection | US Army Corp of Engineers (USACE) and Tillamook County Road Department | TBD | TBD | Annually | Engineering Staff |
| Signs, Delineators & Posts | Visual inspection | Manual on Uniform traffic Control Devices (MUTCD) | 1-4 | Very Good 1, Good 2, Fair 3, Poor(4 | Every other year night time visibility | TBD |
| Culvert | Visual | The U.S. Federal Highway Administration and Oregon Department of Transportation | 1-5 | Very Good 1, Good 2, Fair(3, Poor 4, Very Poor 5 | TBD | TBD |
| Ditches | Visual | Industry Standard | 1-5 | Very Good 1, Good 2, Fair 3, Poor(4, Very Poor 5 | TBD | Contract inspection, as resources allow |

| Asset Type | Inspection Method | Source of Management Standard | Condition Category | | Frequency | Performed by |
|-----------------------|---------------------------|---|--------------------|------------------------|-----------------|----------------------------------|
| | | | Technical Scale | Qualitative Categories | | |
| Vegetation Management | N/A | Industry Standard | N/A | N/A | Annually | Vegetation Management Technician |
| Equipment | Hours or Miles of Service | IRIS Equipment policies | Per Vehicle | Per Vehicle | Ongoing | Shop Supervisor |
| Maintenance Yards | Visual | OSHA, fire Mechanical/Electrical/Structural | TBD | TBD | Annually TBD | Foremen |

Table C-3 Data Maintenance Responsibilities

| Asset /Activity | Source of Data | Lead Staff Contact |
|--|---|---|
| Service Requests | - IRIS | Office |
| Road <ul style="list-style-type: none"> - Pavement inspection - Road inventory - Local gravel condition | <ul style="list-style-type: none"> - Street Saver/contract services - Street Saver/IRIS - Service requests | Director Engineering/Office Foremen |
| Structures <ul style="list-style-type: none"> - Bridges inventory, inspection & post weight limits - Guardrails inspection & inventory management - Levees inventory & inspection management | <ul style="list-style-type: none"> - Contract services /PONTIS/IRIS - IRIS - Inspection reports | Engineering & Signs Engineering Engineering |
| Drainage <ul style="list-style-type: none"> - Culvert inventory & condition assessment - Ditches inventory & condition assessment | <ul style="list-style-type: none"> - IRIS - Contract Management | Engineering/Office Engineering/Office Engineering |
| Traffic Safety <ul style="list-style-type: none"> - Signs - Signs-delineators - Posts - Painted pavement markings | <ul style="list-style-type: none"> - IRIS - IRIS - IRIS - Contract & spreadsheet | Office Office Office Office |
| Vegetation Management <ul style="list-style-type: none"> - Mowing by lane, percent miles cleared of debris - Herbicide by acres sprayed | <ul style="list-style-type: none"> - N/A** - IRIS | Foremen/Office Foremen/ Office |
| Emergency Management <ul style="list-style-type: none"> - Storm response hours - Hours spent plowing and sanding - Slides response - Culverts | <ul style="list-style-type: none"> - IRIS – CAS - IRIS – CAS - IRIS - CAS - TBD | Foremen/Office Foremen/Office Foremen/Office |
| Support Services/ Facilities <ul style="list-style-type: none"> - Equipment management - Facilities management - Materials Management - Cost accounting/Budget development | <ul style="list-style-type: none"> - IRIS - Excel - IRIS - IRIS | Shop Foreman Contract/Admin. Specst. Office Office |

Appendix D: Road Department Policies

Table D-1 Asset Management Policy (Board Order 09-054)

BOOK 111 PAGE 396 ✓
COUNTY COURT JOURNAL

**THE BOARD OF COUNTY COMMISSIONERS
FOR THE COUNTY OF TILLAMOOK IN THE STATE OF OREGON**

In the Matter of a Tillamook)
County Public Works Asset) ORDER
Management Policy) #09-054

FILED
JUL 1 2009
4:50 PM
TASSI O'NEIL
COUNTY CLERK

This matter came on to be heard this 1st day of July 2009, at a regular meeting of the Board of Commissioners, at the request of Liane Welch, Tillamook County Public Works Director.

Being fully apprized of the records and files therein, the Board of Commissioners finds as follows:

1. Tillamook County's road network is the county government's most valuable physical asset. In 2008, the replacement value of the 374 miles of county roads was estimated at \$304 million. The County transportation network has been under funded for years and the condition of county roads is declining.
2. The Tillamook County Board of Commissioners, concerned about the declining condition of county roads and bridges, authorized the Road Department to document the condition and value of County road assets, and identify the risks that must be managed in the County. This approach, known as asset management, helps target available road dollars so that the greatest risks are managed for the least cost.
3. The purpose of the Asset Management policy is to set guidelines for implementing consistent asset management processes throughout Tillamook County Public Works Department.
4. The Road Advisory Committee at their May 5, 2009 meeting accepted the Asset Management report.

NOW THEREFORE, IT IS HEREBY ORDERED THAT:

5. The Tillamook County Asset Management Policy, Exhibit A attached and incorporated here by reference, be and hereby is adopted.
6. This order is to become effective immediately.

DATED THIS 1st DAY OF July 2009.

BOARD OF COUNTY COMMISSIONERS
FOR TILLAMOOK COUNTY, OREGON

| | Aye | Nay | Abstain/Absent |
|---|-----|-----|----------------|
| <u>Tim Josi</u> Tim Josi, Chair | ✓ | | 1 |
| <u>Mark Lebhart</u> Mark Lebhart, Vice-Chair | ✓ | | 1 |
| <u>Charles J. Hurliman</u> Charles J. Hurliman, Commissioner | ✓ | | 1 |

ATTEST: Tassi O'Neil
County Clerk

APPROVED AS TO FORM:

By Susan Y. Beckett
Special Deputy

William K. Gargent
William K. Gargent, County Counsel



EXHIBIT A

TILLAMOOK COUNTY PUBLIC WORKS

ASSET MANAGEMENT POLICY

1.0 Purpose To set guidelines for implementing consistent asset management processes throughout Tillamook County Public Works Department.

2.0 Objective To ensure adequate provision is made for the long-term replacement of major road assets as financial resources allow by:

- Ensuring that County services and infrastructure are provided in a sustainable manner, with the appropriate levels of service to residents, visitors and the environment.
- Safeguarding County road assets including physical assets and employees by implementing appropriate asset management strategies and appropriate financial resources for those assets.
- Creating an environment where all Public Works employees take an integral part in overall management of County road assets by creating and sustaining an asset management awareness throughout the County transportation system.
- Meeting legislative requirements for asset management and financial reporting.
- Ensuring resources and operational capabilities are identified and responsibility for asset management is allocated.
- Demonstrating transparent and responsible asset management processes that align with demonstrated best practice.

3.0 Scope This policy applies to all County public works activities.

4.0 Policy **4.1 Background**

4.1.1 The County Commission is committed to implementing a systematic asset management methodology in order to apply appropriate asset management best practices across all road management areas of the County. This includes ensuring that assets are planned, created, operated, maintained, renewed and disposed of in accordance with Commission priorities for service delivery.

4.1.2 The County owns and uses approximately \$304 million road assets to support its core business of delivering road service to the community.

4.1.3 Asset management practices impact directly on the core business of the county and appropriate asset management is required to achieve our strategic service delivery objectives.

4.1.4 Asset management relates directly to the Tillamook County

Transportation Strategic Plan goals and strategies:

- Protect the function, operation and safety of existing and planned roadways
- Consider land use impacts on existing or planned transportation facilities
- Coordinate with other jurisdictions to assure adequate connections to streets and transportation systems between incorporated and unincorporated areas
- The roadway network is not restricted to jurisdictional boundaries.
- Roadway maintenance and improvement are to be coordinated in cooperation with other jurisdictions.
- Road function, access and “level of service standards” are to be implemented through regulation.

4.1.5 A strategic approach to asset management will ensure that the County Commission delivers the highest appropriate level of service through its assets. This will provide positive impact on:

- Members of the public and staff;
- The ability of the County to deliver the expected level of service and infrastructure based on available resources;
- The political environment in which County Commission operates; and
- The legal liabilities of the County.

4.2 Principles

4.2.1 A consistent Asset Management Strategy must exist for implementing systematic asset management and appropriate asset management best-practice throughout the County’s road department.

4.2.2 All relevant legislative requirements together with political, social and economic environments are to be taken into account in asset management.

4.2.3 Asset management principles will be integrated within existing planning and operational processes.

4.2.4 An inspection regime will be used as part of asset management to ensure agreed service levels are maintained and to identify asset renewal priorities, as funding allows.

- 4.2.5 Asset renewal plans will be prioritized and implemented progressively based on agreed service levels and the effectiveness of the current assets to provide that level of service.
- 4.2.6 Systematic and cyclic reviews will be applied to all asset classes and are to ensure that the assets are managed, valued and depreciated in accordance with appropriate best practice and applicable standards.
- 4.2.7 Future life cycle costs will be reported and considered in all decisions relating to new services and assets and upgrading of existing services and assets.
- 4.2.8 Future service levels will be determined in consultation with the community.

5.0 Standard Government Accounting Standards Board (GASB) Statement 34

6.0 Related Documents Tillamook County Road Asset Management Plan and Road Risk Management Plan.

Responsibility **County Commissioners** are responsible for adopting the policy and ensuring that sufficient resources are applied to manage the assets. The **Public Works Director** has overall responsibility for developing an asset management strategy, plans and procedures and reporting on the status and effectiveness of asset management within the County road network.

Review Date This policy has a life of 4 years. It will be reviewed in June 2013.

Table D-2 Local Access Roads (Board Order 14-003)

BOOK 113 PAGE 059

COUNTY COURT JOURNAL

THE BOARD OF COUNTY COMMISSIONERS

FOR THE COUNTY OF TILLAMOOK IN THE STATE OF OREGON

FILED

JAN 21 2014

TASSI O'NEIL
COUNTY CLERK

In the Matter of Clarifying Board Order) ORDER
Order #08-110 Concerning Spending)
County Moneys on Local Access Roads) #14 - 003
for Reasons of Public Safety when)
Certain Conditions Are Met)

This matter came on to be heard this 15th day of January, 2014 at a regular meeting of the Board of Commissioners, at the request of Liane Welch, Tillamook County Public Works Director.

Being fully apprised of the records and files therein, the Board of Commissioners finds as follows:

1. On December 17, 2008 the Board enacted Order #08-110 authorizing the public works department to perform work on local access roads (LAR's) under certain limited conditions.
2. It is desirable that Board Order #08-110 now be amended to further clarify conditions under which such work may be under taken.
3. All work listed below will not only enhance public safety to the overall community and to the residents, but will also reduce flooding and erosion damage to private and public property and reduce the recurring costs to repair county roads.

NOW THEREFORE, IT IS HEREBY ORDERED AS FOLLOWS:

4. All work done on LAR's not stated in Board Order #08-110 will need to be approved on an individual basis by the County Board of Commissioners.
5. All such work will need to meet one or more of the following criteria.
 - It is a documented emergency evacuation route for the community.
 - Property owners pay 25% of the cost.
 - If property owners cannot pay the 25%, the Board can make an exception.
 - The Director of Public Works must support the project.

- Determination from the Public Works Director that a county maintained road is part of the problem.
- Understanding that LAR's projects approved would compete on a priority level with on-going road projects.
- Continual maintenance of LAR's after approval and completion of project would be the property owner's responsibility.
- The County's share of an LAR project shall not exceed \$75,000 each fiscal year unless the Board of Commissioners determines that there are extenuating circumstances.

6. This order shall become effective February 1, 2014 and shall automatically expire on January 31, 2024.

DATED THIS 16th DAY OF January 2014.

BOARD OF COUNTY COMMISSIONERS
FOR TILLAMOOK COUNTY, OREGON

Aye Nay Abstain/Absent

Bill Baertlein
Bill Baertlein, Chair

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Tim Josi
Tim Josi, Vice-Chair

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Mark Labhart
Mark Labhart, Commissioner

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ATTEST: Tassi O'Neil, County Clerk

APPROVED AS TO FORM:

BY: Summit Bennett
Special Deputy

William K. Sargent
William K. Sargent, County Counsel

