

HUMBOLDT COUNTY ROADS

*A little neglect may breed mischief ... for want of a nail, the shoe was lost;
for want of a shoe the horse was lost; and for want of a horse the rider was lost.*

-Benjamin Franklin
Poor Richard's Almanac, preface (1758)

SUMMARY

The Grand Jury received a written complaint from a Humboldt County resident claiming unsafe roadway conditions resulting from lack of roadway maintenance. The Grand Jury was concerned with determining if County practices favored one area of the county over others with regards to road maintenance. Given the small sample size of our analysis and the uniqueness of Humboldt County rural roads, it was difficult to do a comparative evaluation of this issue. Overall, it appears the Public Works Department is providing appropriate and above levels of care and maintenance given its limited resources and the complex nature of rural roadways.

We did determine that roadway maintenance work is limited at times by a lack of available materials. Deferred maintenance due to lack of materials eventually will have a negative effect on the economic well being of Humboldt County.

BACKGROUND

One member of the Grand Jury, Philip Young, recused himself from this investigation and report to avoid any potential conflict of interest due to his affiliation with the Resort Improvement District #1 in Shelter Cove.

The deferred maintenance issues reported to the Grand Jury included deteriorating asphalt, overgrown roadside vegetation, and clogged drainage channels. This Humboldt County resident's complaint identified both Humboldt County and the Resort Improvement District # 1 as those responsible for road maintenance.

Consequently, we decided it was appropriate to determine how and where County dollars are spent on the maintenance of rural roads. During the investigation, we noticed potential inadequate funding for roadway maintenance and expanded the scope of our inquiry.

The Resort Improvement District #1, while within the geographic area of the complaint, is not responsible for the maintenance outlined in the citizen's complaint. As a result, the Resort Improvement District #1 was not included in as a component of this investigation. Humboldt County Public Works is also responsible for the maintenance of 168 bridges; these bridges, plus roadway signage, and culverts were not included in this investigation.

APPROACH

We divided the investigation into several components.

We wanted to:

- Understand the County Public Works budget, with a focus on funding levels for roadway maintenance,
- Understand the County policies for determining when and where County Road Maintenance occurred,
- Learn how complaints to the Public Works Road division are handled, and
- Review Public Works expenditures on various rural roads areas to see if maintenance expenditures were equitable.

The Public Works Committee interviewed several staff of the Humboldt County Public Works Department and toured rural Humboldt County roads, physically and by virtual means (Google Earth). In addition, the Humboldt County Public Works Department provided road maintenance schedules by maintenance areas for striping, sweeping, ditch cleaning, traffic signs and signals, and traffic studies, plus roadway maintenance costs for eight specific rural roads in Humboldt County.

We reviewed the Humboldt and Del Norte County Budgets and a report on road conditions; *Final Report, California Statewide Local Streets and Roads Needs Assessment*. Nichols Consulting Engineers, January 2013.

DISCUSSION

Humboldt County Public Works is responsible for approximately 1200 miles of roads of which 300 miles are gravel. These do not include State, City or privately owned roads. Furthermore, the County is divided into six maintenance areas: Garberville, Rohnerville, Ferndale, Freshwater, McKinleyville, and Hoopa. Seven to nine crewmembers and associated equipment are assigned to each of these maintenance areas. The crewmembers and the supervisor are responsible for inspecting and maintaining the roadways in their areas. No chemicals, pesticides or herbicides are used in roadside maintenance, thus ditch maintenance is either manual or mechanical. Well-maintained drainage features such as culverts and ditches are an integral component of roadway maintenance, hence the maxim; control the water, control the road.

The County contracts out road paving projects, such as the recent work on Humboldt Hill for repaving plus American Disability Act curb and sidewalk upgrades. The County does plan and engineer these types of projects.

Roads are rated with a roadway condition index where an index of 100 is considered a new road, and 0 is a road that has failed. From the *Final Report, California Statewide Local Streets and Roads Needs Assessment*, roads with a good to excellent pavement index greater than 70 are

candidates for pavement preservation techniques, such as chip seals, applied every five to seven years as traffic volumes indicate. A pavement index ranging from 25 to 69 indicates the structural adequacy of the pavement needs to be addressed, usually requiring asphalt repaving of varying thicknesses. For a pavement index of less than 25, total reconstruction is recommended.

In 2012, Humboldt County roads rated a pavement index of 64. This number, while appearing robust, indicates Humboldt County Roads are in need of structural treatments to avoid further deterioration. Unfortunately, due to budgetary constraints, the most frequent roadway treatment is chip sealing; a preservation treatment, not a structural treatment. Without proper maintenance and repair, paved roads will eventually revert to gravel roads. It is more cost effective to keep a road in good repair than to reconstruct a failed road.

According to the American Society of Civil Engineers, “Infrastructure is the physical framework upon which the U.S. economy operates... with degrading surface transportation, trips can still be made, but they would take longer and be less reliable, and travel could be less safe.” While these remarks are addressing the United States as whole, the same statements are applicable to Humboldt County. In a letter to the Board of Supervisors, dated April 16, 2013, the Public Works Director indicated a shortfall of \$687,000,000 for pavement needs over the next ten years.

Budget and Funding

The Public Works Roads fund has \$29,449,232 allocated for total expenditures adopted in the Humboldt County 2013-2014 Budget. Based on prior budgets and as reported by Public Works staff, the actual funds available for roadways are less than adopted. In 2013 road funds were frozen two months into the fiscal year. This places constraints on the purchasing of materials needed for roadway repair as the price of these materials, primarily petroleum products, is steadily increasing while the dollar amount reserved for materials has not kept pace.

Unfunded mandates such as compliance with the American Disabilities Act of 1990, National Pollutant Discharge Elimination System, and traffic signage upgrades place additional constraints on the Roadway budget.

Public Works Roads actively seeks and works with partners to increase road maintenance effectiveness and maximize limited funding. Those partners include some of the cities within Humboldt County, the Humboldt County Association of Governments and the State of California. Public Works staff indicated the willingness to further develop these partnerships.

Policy

The County Public Works tries to maintain as many roads as possible while staying within the confines of its budget. Each maintenance area has a schedule for tasks, delineated by specific roads within that area. The roadway work limits are further described by post miles. For example; the Hoopa area crew is expected to annually ditch (that is, clean a roadside ditch to ensure the water flow path is maintained) on Titlow Hill Road from Post Mile 0.0 to 3.6. Maintenance duties include ditch work, striping, sweeping, and sealing. Roadside vegetation is kept clear within County Right of Way property limits.

Area maintenance supervisors are responsible for determining how to spend the budget for their jurisdiction. Often, those plans for maintenance work are interrupted by emergency work such as sanding for icy conditions, and small landslides or roadway slipouts. In addition, budgetary constraints, such as a freeze on the purchasing of materials, limit roadway maintenance work. There is no written policy for determining road maintenance budgetary priorities; it is dependent upon the experience of area supervisors.

For paved roads the County's goal is to chip seal 10% of the miles per year, and to grade gravel roads once a year, more often for higher traffic volume gravel roads. However, budgetary constraints preclude the Road Division from meeting the chip seal goal.

Complaints

Complaints about roadway maintenance are handled through the County Dispatch and routed to the appropriate maintenance area. Calls coming into the Public Works Department are recorded onto a daily log.

Comparison

We decided to compare similar rural road maintenance expenditures in Humboldt County to determine if roadway expenditures were equitable. Given that Humboldt County geology places additional burdens for road maintenance in the form of unstable slopes and slipouts, we attempted to focus on those roads with similar gradients, traffic volume, and roadside vegetation and roadway widths.

We studied Alderpoint, Kane, Maple Creek from Blue Lake Road to Butler Valley Road (Maple 1), Maple Creek from Butler Valley road to the end (Maple 2), Old State Highway near Orick, Patrick's Point Drive, Shelter Cove west of Briceland/Thorne roads and Scenic Drive.

Humboldt County Public Works Department provided five years worth of information. We considered only road maintenance funding provided by local revenue streams. A measurement of roadway use is an Average Daily Traffic count, determined by traffic studies conducted by the Road department.

We compared roadway maintenance costs per mile over a five-year period, an average cost over one year, and by Average Daily Traffic. While this gave us an overall view of roadway maintenance and use, short roads with high or low traffic volumes and roadways with exceptional geotechnical needs skewed the results. In reviewing the information with these caveats, we found no meaningful difference in roadway expenditures.

Portions of Humboldt County along the coast require more brush clearing than drier, interior areas. Topography, cooler weather with fog and higher rainfall amounts contribute to increased vegetation growth. Brush clearing is necessary to minimize fire hazards and improve visibility along the roadway.

Humboldt County spends approximately the same as Del Norte County with regards to dollars spent per road miles for roadway maintenance.

FINDINGS

- F1. There are missed opportunities for roadway maintenance if an area supervisor runs out of materials to do the necessary work.
- F2. There is no easy cost effective means to manage roadway maintenance with insufficient materials to do the necessary work.
- F3. In order to do the needed road work, it is necessary to retain skilled full time staff.
- F4. Roadway area supervisors have discretion to perform necessary roadway work. However, a logical plan of road maintenance and servicing is impossible without the necessary supplies to maintain the County's roadways. The result can only be a gradual deterioration of the road infrastructure over time.
- F5. Humboldt County rural road expenditures for maintenance appear to be distributed equally in all areas of the County. We were unable to determine specifically if any areas of the county received preferential or substandard roadway maintenance given the limited study size, the variable nature of Humboldt County Roads, and constrained roadway maintenance funding.
- F6. Complaints are handled appropriately, given the Public Works Department's limited funding.

RECOMMENDATIONS

- R1. Increase the dollar amount allocated to material purchases. (F1, F2)
- R2. Encourage and develop partnerships with cities, special districts, and other outside agencies. (F1, F3)
- R3. Continue to support the best possible use of limited maintenance funds while ensuring the latitude for decision-making authority for each area supervisor. (F4)
- R4. The County is encouraged to establish the Debt Capacity Ad Hoc Committee, mentioned in the Mid Year Budget report, for the possibility of a future bond issue to improve County facilities and infrastructure. (F1, F2)
- R5. The County is encouraged to research and acquire funding for economic development in non-urban areas. (F1, F5).

REQUEST FOR RESPONSES

Pursuant to Penal Code section 933.05, the following responses are required:

- The Humboldt County Board of Supervisors; respond to R1 and R5.

The Grand Jury invites the following individual to respond:

- The Humboldt County Director of Public Works: respond to R2, R3, and R4.

Reports issued by the Grand Jury do not identify individuals interviewed. Penal Code § 929 requires that reports of the Grand Jury not contain the name of any person or facts leading to the identity of any person who provides information to the Grand Jury.

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