

Humboldt County Service Authority for Freeway Emergencies (HCSAFE) Call Box Strategic Plan



October 2021

Introduction to Humboldt County SAFE (HCSAFE)

In 1985 the California Legislature passed Senate Bill 1190 to enable counties to generate revenue for the purpose of purchasing, installing, operating and maintaining an emergency motorist aid system. Funding for this program is obtained from a one-dollar registration fee collected by the Department of Motor Vehicles (California Vehicle Code 9250.10). Senate Bill 1199 (California State Streets and Highways Code, Section 131.1, Sections 2550- 2559), enacted in January 1986, provided the basic format for the formation of Service Authorities for Freeway Emergencies, and Assembly Bill 1390, enacted in October 1991, authorized a county and its cities to designate a Council of Governments to serve as a SAFE for the county. In 2015, the SAFE legislation was amended to allow money to be used for traveler information systems, Intelligent Transportation System architecture and infrastructure, transportation demand management services, and safety-related hazard and obstruction removal.

In 1993, the County and cities designated the Humboldt County Association of Governments (HCAOG) as the SAFE agency in Humboldt County. A roadside call box program was adopted in 1994. HCAOG, in its role as the Humboldt County Service Authority for Freeway Emergencies (HCSAFE), is responsible for the road side call box program in Humboldt County. The SAFE Board of Directors is composed of identical membership to the HCAOG Board. The HCAOG Executive Director administers the program. HCSAFE implements the program in partnership with the California Highway Patrol (CHP) and Caltrans.

Project Need

The SAFE Strategic Plan is intended to provide a blueprint for the financial and physical management of a comprehensive highway assistance program. HCSAFE's priority is to provide tools to help motorists obtain aid in emergency situations.

The existing call box system needs to be upgraded to meet ADA standards. HCSAFE has contracted with CASE Systems Management to complete necessary maintenance and upgrades to the call boxes. This plan also evaluates the usage levels of existing call boxes, and proposes a method for relocating severely underutilized call boxes. Rural routes such as Highway 36 and Highway 96 have a documented need for increased motorist aid services. This strategic plan considers the costs and benefits of expanding the call box program to these rural areas, including a proposal to install satellite call boxes in remote areas lacking cell service. The plan provides a sustainable budget to implement the call box upgrades and expansion. The plan also considers funding availability for supplemental CHP patrols and for motorist safety signage.

Known Issues

The HCSAFE faces several issues that need to be addressed in the near term to continue operating high quality motorist aid in the region. Identified issues are:

1. Poor reception: Some areas of the county do not have adequate cellular reception, limiting the effectiveness of cellular call boxes. These are also the rural areas most in need of motorist aid because of the lack of cellphone service and nearby services.

2. Satellite Technology: Satellite call boxes cost more, but serve a need in remote locations.
3. Americans with Disabilities Act of 1990 (ADA): Call box platforms are in need of upgrades to meet ADA standards.
4. Maintenance: Call boxes are due for upgrades from 3G to 4G technology.

Priorities/ Actions

The priorities of the HCSAFE Strategic Plan are as follows:

1. Establish a threshold to determine which call boxes are underutilized and identify which, if any, are to be removed or relocated.
2. Complete ADA and network upgrade improvements for all call boxes that will not be relocated.
3. Evaluate call box requests and determine how many, and what type, of additional call boxes can be sustainably supported based on SAFE financial projections.
4. Install call boxes at new locations.
5. Plan for supplemental patrols.

How Does a Call Box Work?

The following describes the operation of a call box (from Mendocino County SAFE Strategic and Financial Plan (2017)):

Each call box is a battery powered, solar charged roadside terminal with a microprocessor and built-in cellular or satellite telephone. Call box terminals are attached to steel poles mounted on slip bases designed to minimize damage to the call box and to a vehicle in the event of a knockdown. Motorists need only open the front of the unit and pick up the handset and push a large green button to be connected to a California Highway Patrol (CHP) dispatcher. At that point, voice communications between the motorist and the dispatcher are like any other voice telephone communications. If the motorist needs aid, but has a physical, speech and/or hearing disability, they can push the large red button, which will help the CHP dispatcher identify the motorist as impaired and will engage the TTY feature of the call box, where the user can then begin typing the appropriate message to the CHP Dispatcher. Satellite call boxes are operated in a similar manner. However, one important difference is the amount of time needed to connect to the CHP dispatcher.

Once the motorist is connected, the dispatcher responds to the request by (1) routing designated calls such as accident reports, crime reports, fires and requests for medical assistance to CHP for the appropriate services or (2) providing a direct connection to routine service to private tow and service providers. All call boxes in California use an Automatic Number Identification (ANI) feature which informs the dispatcher, through a data base look-up, of the exact location of the caller. This feature expedites service requests and is particularly important in critical situations or when motorists are otherwise unable to discern their locations.

Call boxes receive as-needed corrective maintenance to keep them operating. The units are designed to operate in extreme temperatures and in all types of weather conditions. Cellular call boxes automatically report their operational status at regular intervals (every 72 hours), and Satellite call boxes report operational status at regular intervals (every 6 days) reporting items such as: battery

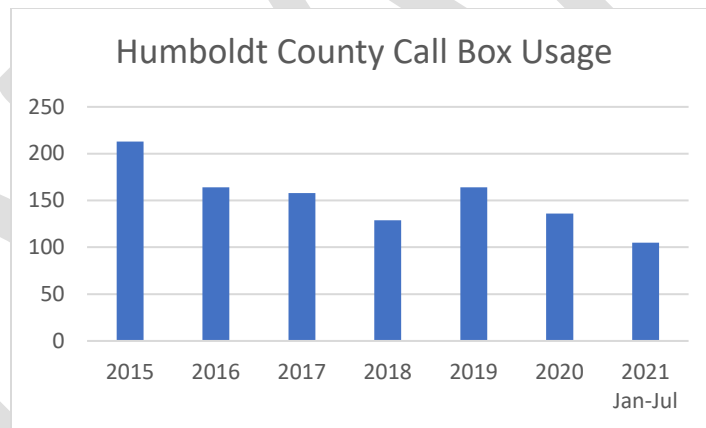
voltage, electrical components continuity, etc. If a critical item malfunctions in between routine status report calls, the call box initiates an immediate alarm call to the maintenance center.

Existing Call box Program

Humboldt SAFE currently maintains 62 call boxes, of which 51 are located on Highway 101 and 11 on Highway 299. Call boxes on divided highways with four lanes are installed in pairs on opposite sides of the highway, while call boxes on two-lane highways are generally installed as single boxes. The distance between call boxes varies in Humboldt County. The primary purpose of call boxes is to provide assistance to motorists traveling the highways. There is an equity component to this as lower income individuals are less likely to be able to address car issues in a timely manner and therefore more likely to have car trouble on the road.

Operational Statistics

CASE provides reports that tally the total number of calls from each box to the primary answering point each month. Appendix A shows the usage report totals for each existing call box from 2015 to the first half of 2021. The historic usage from this 6.5 year period provides an overall patterns of use. On average, the 51-call box network on Highway 101 receives 171 calls per year. On average, the 11-call box network on Highway 299 gets 31 calls per year. The overall trend is slightly down from the peak in 2015, though the number of calls does appear to be consistent in the 125 to 150 range.



Call boxes With Lowest Volume

The call boxes with the least usage are highlighted in red in Appendix A, representing the bottom quartile of usage for the call box system. There are 11 call boxes on Highway 101 and three on Hwy 299 that fall within this bottom quartile.

One would expect that call boxes within urban areas with good cell phone reception would be less utilized, and indeed many of the call boxes on this list fall in that category. For instance, box numbers 101-0120 and -0121 are just outside Garberville; Box 101-0525 and -026 in Rio Dell; and Boxes 101-0940 and -041 near Airport Road in McKinleyville. Additionally, the northbound call box in Fortuna is used an average of once per year.

Call boxes With Highest Volume

101-0472 Northbound Stafford Road received a total of 63 calls. The two most-used call boxes on Highway 299 are 299-0425 and 299-0377. The call boxes north of Orick and south of Scotia receive a high level of use. This generally correlates with areas that have poor or no cell phone reception.

Other Use of SAFE Funds

In addition to operating the highway call box program, HCSAFE can use funds on other highway motorist safety and motorist aid programs.

California Highway Patrol

Since the inception of Humboldt County's roadside call box program in 1993, HCAOG has continued a contractual relationship for services and assistance for highway safety with the California Highway Patrol (CHP). Since November 2014, HCAOG has been under a Standard Agreement contract with the California Highway Patrol (CHP) for supplemental patrols on State Routes 36 and 96, not to exceed \$100,000 per year. The supplemental patrols are intended to provide roadside assistance to the public on State Routes 36 and 96- areas with limited cell phone coverage and currently have no call box installations. The agreement has been re-authorized by the HCAOG Board annually. The agreement for FY 2021-22 added State Route 169 to the patrols. Following installation of call boxes on these highways, HCSAFE will evaluate the need for supplemental patrols

CHP Supplemental Patrols Update*

Total Motorist Services	173
Total Enforcement Contacts	125
Total Miles Driven	19,004

*September 2018-June 19, 2019

Eureka Police Department

Beginning in October 2018, HCAOG contracted with the Eureka Police Department (EPD) for supplemental patrols on the Highway 101 Safety Corridor. The not to exceed \$200,000 annual contracts funded supplemental patrols with the SAFE fund. The resolution identified a need for supplemental police patrols to provide traffic and speed enforcement until such time as construction began on the Interchange project. Eureka Police Officers signed up for four-hour overtime shifts between 6:00 a.m. and 10:00 p.m. In total, EPD officers have spent 2,556 hours on patrol, logged 27,424 miles, conducted 2,756 traffic stops, issued 1,139 citations, 1,606 warnings and made 72 arrests. However, the EPD patrols funded by HCSAFE will be discontinued as the Safety Corridor Highway Improvement project is slated to begin construction and will have traffic control measures in place. Once the project is completed, there should no longer be a need for supplemental patrols. The HCSAFE may evaluate the need for additional patrols at any time.

Road Signs

Members of the Technical Advisory Committee (TAC) suggested installing road signs that would indicate areas of good cell phone reception. This would be a more cost-effective way to ensure that drivers are aware of turnouts where there is likely to be cell reception so they know where to pull over to call for aid if needed. One challenge with this approach is that there are a variety of cell providers with different service areas (e.g. Verizon, Sprint, AT&T). Cell phone coverage maps available through these carriers are based on the location and range of their infrastructure, but do not take into account mountains, trees, and other obstructions created by the terrain (see Appendix C). Given these variables, it would be difficult to install a sign in a fixed location indicating that cell phone service is available.

Another option is to identify locations to place signs alerting drivers to the presence of the roadside call box service (i.e. "Begin/end motorist aid call box service"). These types of signs are present on the Del Norte SAFE service. Further study and collaboration with Caltrans District 1 is needed to determine locations and sign types along the state highway system where such messages will be useful for motorist safety. The HCSAFE finance plan includes a reserve of approximately \$30,000 in SAFE funds to use for this purpose.

Needs Assessment

There are known areas of the County accessed by the state highway system where there is little to no cell phone reception and there is no call box service. The CHP does not have the staff resources to regularly patrol those areas without additional SAFE funds. These highways also have areas with documented high collisions. Highway motorists in these rural areas are at further risk in the case of an emergency.

Policy Advisory Committee and Technical Advisory Committee members with knowledge about the rural communities of Bridgeville and Orleans helped make HCAOG staff aware of the need to extend the call box program to Highway 36 and Highway 96. Bald Hills Road, a County-maintained road, has also been identified as a route in need of call box services.

Other rural County roads such as Mattole Road, Alderpoint Road, and Shelter Cove Road may be candidates to consider for call box expansion. HCAOG has not yet received requests for call boxes on these roads.

For safety purposes call boxes are required to be located on a shoulder at least 8 feet wide. Because they are solar powered, the location also needs to have sufficient solar access (not located under dense tree canopy). In addition, call box sites should be located away from private road intersections. The existing call box system needs platform upgrades to meet Americans with Disabilities Act (ADA) accessibility standards. The CHP/Caltrans Call Box and Motorist Aid Guidelines provides further details on standards for call box design.

Relocating Call Boxes

Rather than decommission existing call boxes, this plan recommends call box materials be relocated for use elsewhere. This requires a process for determining when call boxes meet criteria for being relocated. A variety of methods could be used. It should be noted that according to the Call Box Guidance document, a SAFE does not need to submit a removal plan to the CHP and Caltrans for the removal of individual call boxes. However, removals greater than 10% of the number of installed call boxes on any one corridor does require a removal plan. The Highway 101 corridor has 51 call boxes which would allow for the removal of five individual boxes, and Highway 299 has 11 call boxes allowing for the removal of one.

Using the prior six and a half years of call box usage data (2015-2021), individual call boxes can be identified with a pattern of very low use. The data shows eight call box locations on Hwy 101 where zero calls were made in at least four of the six years. One issue with this approach is that even a single call can be a significant help to the person needing aid.

The underutilized call boxes highlighted by this method are:

- NB Alderpoint, MM 12, 101-0120
- SB Alderpoint, MM 12, 101-0121
- SB 101 S of Barkdull Road, MM 42.6, 101-0425
- SB Myers Flat, MM 28, 101-0281
- SB Rio Dell, MM 52.5; 101-0525
- NB Rio Dell, MM 52.5; 101-0526
- NB Chapman's Gem Store, MM 56; 101-0560
- NB 101, MM 122.85, 101-1230

Although the data shows this last call box received no calls from 2015 to 2018, it has seen an increase in use in recent years and is not recommended for relocation.

Methodology for Expanding Call Box Locations

HCSAFE will consider potential locations to expand the call box program by request. Requests can be submitted by the public, community groups, or committee members by contacting HCAOG staff. Crash data, cell phone service, proximity to existing call boxes, proximity to emergency services, and the financial impact, will all be considered by staff in reviewing individual requests.

SAFE Financial Plan

Humboldt County SAFE is funded by a \$1 per vehicle annual registration surcharge that is collected by the DMV as part of the normal vehicle registration process. The sum received in the HCSAFE fund each year is approximately \$136,000, based on the average amount received over the last five years. This amount is anticipated to remain relatively stable as the number of vehicle registrations in Humboldt County does not fluctuate significantly. Following the initial

implementation of the call box program, SAFE funds have accumulated. A significant account balance was accrued during this time, explaining the current account total of \$1,580,527.

HCSAFE has contracted with CASE Systems Management to provide maintenance, upgrades and manage installation of new call boxes. The proposed maintenance fee for the current system is \$2,790 per month (\$45 per call box).

HCSAFE will keep a minimum of \$300,000 reserve in order to be prepared for future upgrades or unexpected needs. The program aims to be financially sustainable for the next 20 years and maximize the utility of the program. The table below shows the overall fiscal outlook for the SAFE program for the next five years. The financial plan calls for initial high expenditures of approximately \$360,000 in both FY 21/22 and 22/23 to pay for the upgrades and ADA improvements, and purchase and installation of new call boxes. Beginning in 2023, costs would stabilize at approximately \$189,000 per year to maintain and operate the expanded call box program.. The difference in annual costs and expenditures is \$53,000. With a starting balance of \$1.1 million in FY 23/24, the program would not run down to the reserve fund until 2042.

The estimated \$189,000 annual operating budget (after currently planned upgrades and expansion) includes \$100,000 annually to the CHP for supplemental patrols. This contract is renewed annually. At contract renewal staff will provide HCSAFE with a report on HCSAFE financial position and recommend any changes to the contract amount that may be necessary to keep the HCSAFE solvent. This will also give the opportunity to HCSAFE to consider funding additional patrols in light of any new call box location requests that may have been submitted.

Table 1. *Humboldt County SAFE 5-year Fiscal Plan*

	2021/22	2022/23	2023/24	2024/25	2025/26
Beginning Fund Balance	\$ 1,580,527	\$ 1,354,027	\$ 1,119,706	\$ 1,066,706	\$ 1,013,706
Gross DMV Revenue	\$ 136,000	\$ 136,000	\$ 136,000	\$ 136,000	\$ 136,000
Total Projected Expenditures	\$ 362,500	\$ 370,321	\$ 189,000	\$ 189,000	\$ 189,000
Annual Balance:	\$ 1,354,027	\$ 1,119,706	\$ 1,066,706	\$ 1,013,706	\$ 960,706

Table 2. Detailed Call Box Program Costs

Expenses	2021/22	2022/23	2023/24	2024/25	2025/26
Administration / Staff Time	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
CASE Systems Maintenance & Contract	\$ 32,500	\$ 42,875	\$ 45,000	\$ 45,000	\$ 45,000
Wireless cell services*	\$ 13,500	\$ 14,000	\$ 14,000	\$ 14,000	\$ 14,000
Wireless satellite service	\$ -	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
One-time Callbox Upgrades to 4G and ADA	\$ 115,500	\$ -	\$ -	\$ -	\$ -
Callbox Expansion					
New Cellular Callboxes	\$ -	\$ 101,621	\$ -	\$ -	\$ -
New Satellite Callboxes	\$ -	\$ 55,750	\$ -	\$ -	\$ -
Upgrade Existing Callbox to Satellite Phone	\$ 37,250	\$ 26,075	\$ -	\$ -	\$ -
Supplemental Highway Patrols - CHP (36, 299, 169)	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
Total Expenses	\$ 362,500	\$ 370,321	\$ 189,000	\$ 189,000	\$ 189,000
*US Cellular in 2021 and Verizon starting in 2022					

Table 2 provides the cost breakdown of one-time upgrades, ongoing maintenance and staff costs, cell and satellite service cost estimates, and costs for labor and materials to expand the call box program.

Table 3. Call box costs per units

Type of Callbox	Cost/Box	# to Install 22/23	# to Install 23/24	# to Install 24/25	# to Install 25/26
New Cellular Callbox	\$ 7,817	13			
New Satellite Callbox	\$ 11,150	5			
Relocate Existing Box and Upgrade to Satellite	\$ 3,725	7			
Per diem Labor	\$ 7,875	1			

Based on the needs assessment, the distribution of the call box expansion may look as follows:

Table 4. *Call box expansion*

Highway/Road System	# of Cellular Call Boxes	Satellite Call Boxes
Hwy 36	7	5
Hwy 96	5	5
Hwy 169		1
Bald Hills Road	1	1

A key element of the analysis is how many and what type of call boxes can be purchased and maintained. Satellite call boxes carry significantly more expense. The cost of materials for a satellite box is \$11,090, plus an additional \$800 per year for each satellite phone line. The cost per minute is also higher for the satellite phone.

For the call box expansion, costs will be dependent on the final number of additional call boxes recommended for installation. This plan provides a financial analysis based on current cost estimates and current needs, but stops short of identifying specific siting. Final call box types and costs will be dependent on the locations chosen, which will occur in coordination with Caltrans District 1 safety engineers and CASE Systems management. HCSAFE will secure an encroachment permit for all work.

Conclusion

Moving forward, staff will continue to monitor call box usage, track the SAFE fund, and work with stakeholders to implement the SAFE plan. This Strategic Plan will be updated and revised as needed.

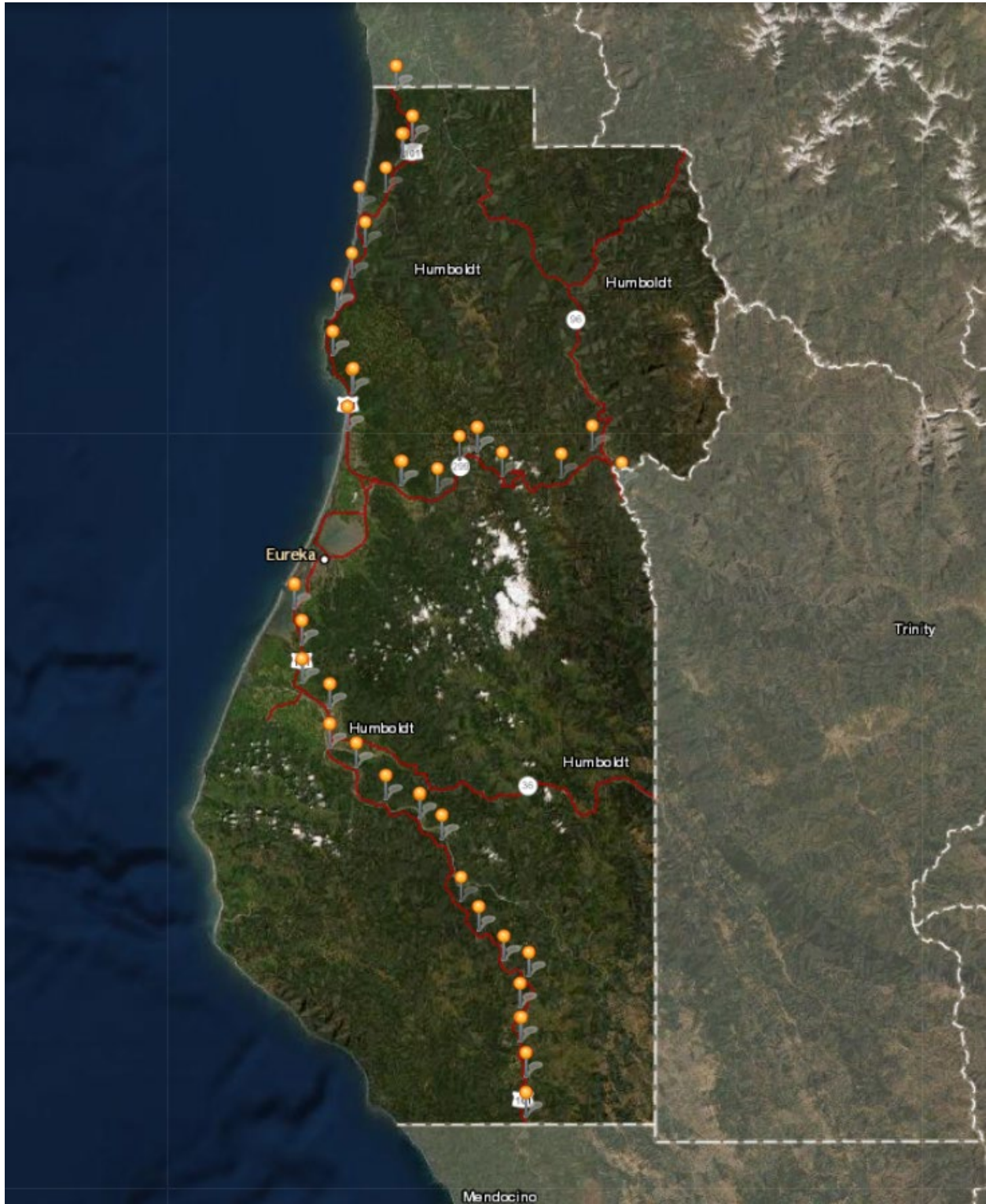
Appendix A

Call box Usage Summary Jan 2015 – July 2021

Sign #	Mile Marker	Hwy – description location	2015 Total	2016 Total	2017 Total	2018 Total	2019 Total	2020 Total	2021 Total	Total 2016- July 2021	Avg/Year
			213	164	158	129	164	136	105		
101-0000	MM .01	Mendocino/Humboldt line	7	9	2	3	8	4	1	34	5
101-0001	MM 0	SB 101 Redwood Hwy	14	7	4	3	4	1	0	33	5
101-0080	MM 8.1	NB 101 Benbow Lake Exit	2	5	2	1	1	1	0	12	2
101-0081	MM 8.1	SB 101 Benbow Lake Exit	2	4	2	1	4	1	1	15	2
101-0120	MM 12	NB 101 N of Alderpoint Rd	2	0	0	0	0	2	1	5	1
101-0121	MM 12	SB 101 Redwood Hwy	1	2	1	0	0	0	0	4	1
101-0156	MM 15.6	NB 101 N of Wood Ranch Rd	2	3	2	3	2	1	1	14	2
101-0157	MM 15.6	SB 101 S of Wood Ranch Rd	4	2	4	1	0	0	1	12	2
101-0195	MM 19.5	SB 101	1	0	3	2	5	0	0	11	2
101-0196	MM 19.5	NB 101 N of Avenue of Giants	6	4	4	3	3	2	3	25	4
101-0230	MM 23.1	NB 101 N of Bear Butte Rd	2	1	2	0	0	1	0	6	1
101-0231	MM 23.1	SB 101 N of Bear Butte Rd	14	4	1	1	1	0	7	28	4
101-0280	MM 28	NB 101 Redwood Hwy	1	8	2	0	1	1	0	13	2
101-0281	MM 28	SB 101 N of Myers Flat	1	0	0	1	0	1	0	3	0
101-0320	MM 31.9	NB 101	5	2	3	7	2	1	5	25	4
101-0392	MM 39.2	NB 101	6	2	0	0	5	5	1	19	3
101-0393	MM 39.2	SB 101	9	2	2	1	1	0	0	15	2
101-0425	MM 42.6	SB 101 S of Barkdull Rd UC	0	1	0	2	7	0	0	10	2
101-0426	MM 42.7	NB 101 S of Barkdull Rd UC	12	2	2	6	6	1	2	31	5
101-0471	MM 47	SB 101 Stafford Road	1	3	1	10	5	3	0	23	4
101-0472	MM 47.2	NB 101 Stafford Road	11	5	3	6	11	15	12	63	10
101-0525	MM 52.5	SB 101 - (Davis St, Rio Dell)	0	0	1	0	1	0	0	2	0
101-0526	MM 52.5	NB 101 - (Davis St, Rio Dell)	0	0	0	0	0	0	0	0	0
101-0560	MM 56	NB 101 Chapman's Gem Store	1	0	1	0	5	0	0	7	1
101-0561	MM 56	SB 101 Chapman's Gem Store	4	2	4	1	3	2	1	17	3
101-0600	MM 60	NB 101 Fortuna	5	1	3	1	3	8	1	22	3
101-0601	MM 60	SB 101 Fortuna	1	0	1	1	2	3	1	9	1
101-0636	MM 63.5	NB 101 Fern Bridge	4	0	5	2	0	3	3	17	3
101-0637	MM 63.5	SB 101 Fern Bridge	5	5	1	1	2	3	0	17	3
101-0684	MM 68.4	NB 101 Hookton Road	9	6	3	3	5	4	9	39	6
101-0685	MM 68.4	SB 101 Hookton Road	6	9	7	7	3	7	2	41	6
101-0720	MM 71.9	NB 101 Fields Landing	1	7	1	6	3	0	0	18	3

Sign #	Mile Marker	Hwy - description location	2015	2016	2017	2018	2019	2020	2021	Total 2016-	Avg/Year	
			Total	Total	Total	Total	Total	Total	Total	July 2021		
38	101-0721	MM 71.9	SB 101 Fields Landing	1	3	3	1	2	1	4	15	2
39	101-0940	MM 94.1	NB 101 Airport Road	1	0	2	0	1	3	0	7	1
40	101-0941	MM 94.1	SB 101 Airport Road	0	3	0	1	2	0	1	7	1
41	101-0975	MM 97.65	SB 101	3	6	1	8	5	2	2	27	4
42	101-0976	MM 97.65	NB 101	2	1	0	1	1	1	3	9	1
43	101-1020	MM 101.9	NB 101	4	1	4	1	2	0	0	12	2
44	101-1021	MM 101.9	SB 101	2	4	1	1	1	1	1	11	2
45	101-1072	MM 107.3	NB 101	4	1	9	2	3	0	2	21	3
46	101-1073	MM 107.25	SB 101	2	2	4	1	1	1	0	11	2
47	101-1111	MM 111.21	SB 101	7	2	5	1	11	12	5	43	7
48	101-1153	MM 115.25	SB 101	5	6	6	0	2	11	4	34	5
49	101-1191	MM 119	SB 101	2	1	8	2	5	2	2	22	3
50	101-1230	MM 122.85	NB 101	0	0	0	0	8	7	1	16	2
51	101-1270	MM 127	NB 101	13	5	6	6	9	4	8	51	8
52	101-1271	MM 127	SB 101	2	4	8	4	6	1	2	27	4
53	101-1316	MM 131.7	NB 101	9	8	2	1	2	4	11	37	6
54	101-1317	MM 131.7	SB 101	4	3	12	5	5	14	7	50	8
55	101-1360	MM 136	NB 101	5	8	11	14	4	1	0	43	7
56	101-1361	MM 135.9	SB 101	8	10	9	7	1	1	0	36	6
57	Highway 299											
58	299-0045	MM 4.5	WB 299	6	1	1	2	0	0	3	13	2
59	299-0046	MM 4.5	EB 299	6	0	2	2	0	4	0	14	2
60	299-0082	MM 8.2	EB 299	0	0	2	1	3	1	0	7	1
61	299-0126	MM 12.5	EB 299	4	2	4	6	3	4	2	25	4
62	299-0159	MM 15.9	WB 299	2	4	3	3	1	6	5	24	4
63	299-0211	MM 21	WB 299	12	1	1	2	1	2	1	20	3
64	299-0239	MM 23.9	WB 299 (out of commission)	7	0	0	0	0	0	0	7	1
65	299-0278	MM 27.75	EB 299	1	0	1	3	1	1	0	7	1
66	299-0325	MM 32.6	WB 299	7	5	8	2	3	5	0	30	5
67	299-0377	MM 37	WB 299	1	2	0	2	7	0	1	13	2
68	299-0425	MM 42.4	WB 299	4	5	10	7	7	8	4	45	7

Appendix B: Map of Existing Call boxes



Appendix C: Cell Coverage Maps

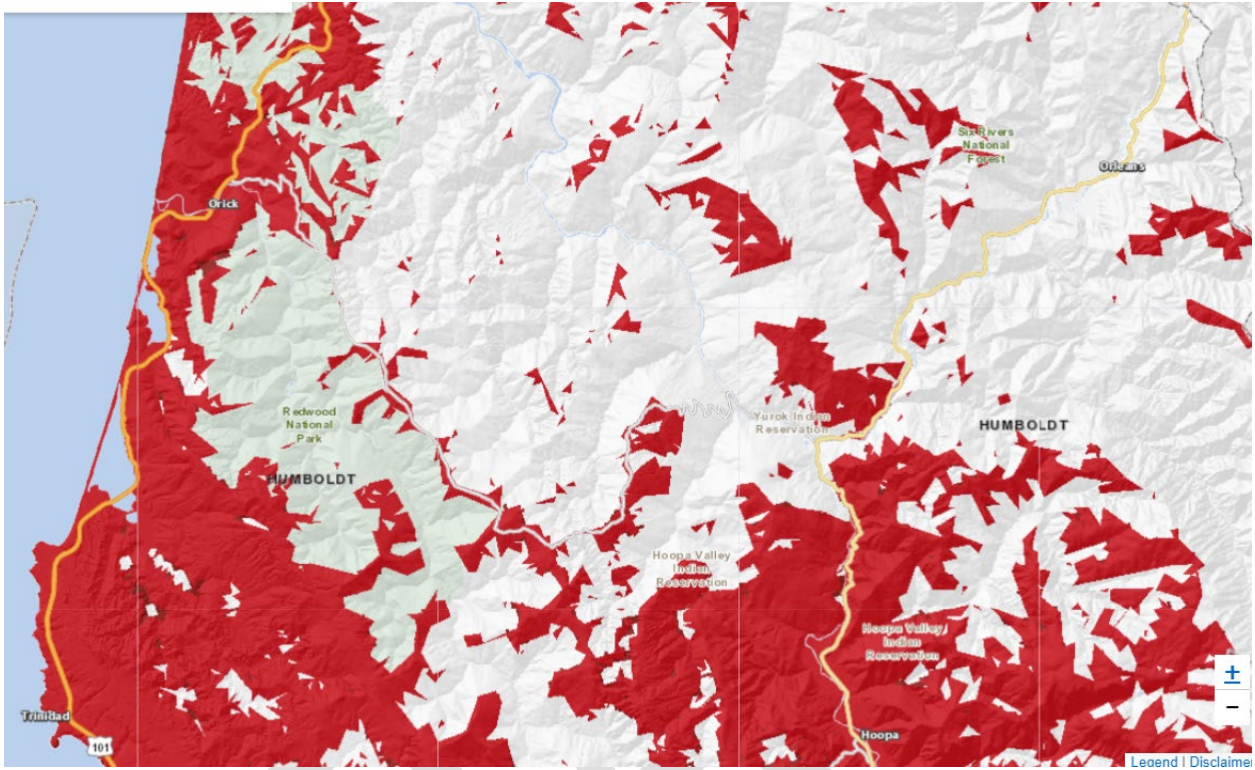


Image: Verizon coverage map Northern Humboldt

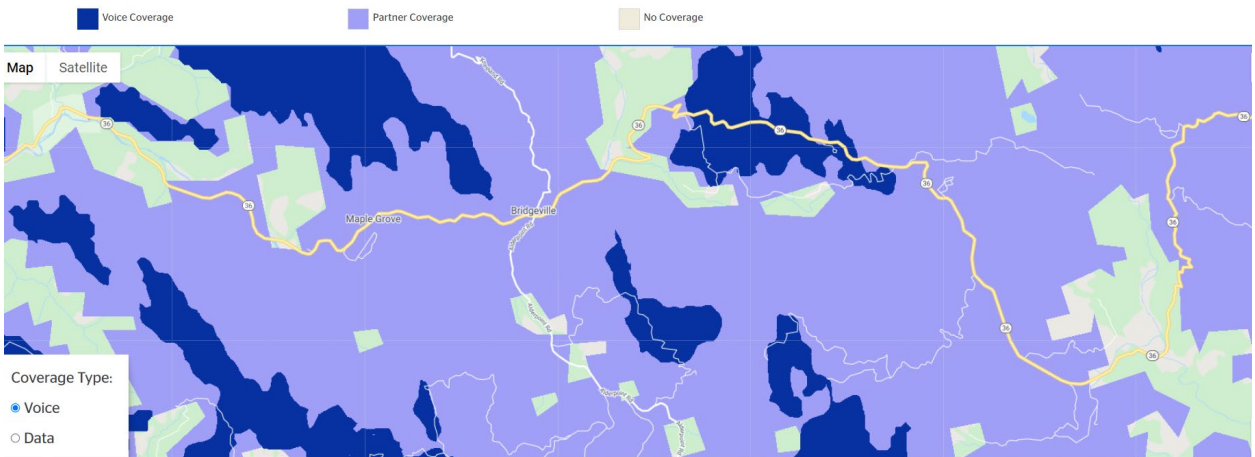


Image: US Cellular service around Bridgeville