

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

**Communications Division
Broadband, Video and Market Branch**

**RESOLUTION T-17548
February 9, 2017**

RESOLUTION

Resolution T-17548: Approval of funding for the grant application of Inyo Networks, Inc. (U-7159C) from the California Advanced Services Fund (CASF) in the amount of \$40,502,691 for the Digital 299 middle-mile broadband project, which will serve CASF “priority areas.”

I. Summary

This Resolution approves funding in the amount of \$40,502,691 from the California Advanced Service Fund (CASF) for the grant application of Inyo Networks, Inc. (Inyo) to construct the Digital 299 Broadband Project (Digital 299), which includes both middle-mile and last-mile facilities. The proposed project will provide high-capacity backhaul infrastructure and interconnection points to communities along the California State Route 299 (Highway 299) corridor. Additionally, Digital 299 will directly connect 307 underserved households to last-mile Internet services capable of 1 Gbps symmetrical throughput using underground and aerial fiber facilities, with as many as 102 schools, colleges, research institutions, hospitals, clinics, public safety, tribal lands, and other Community Anchor Institutions (CAI) also able to take advantage of such connections. The project area covers almost 2,400 square miles of rural Northern California between Redding and the California coast, encompassing portions of Shasta, Trinity, and Humboldt counties.

Of the proposed \$40,502,671 grant, \$1,455,215 is earmarked in subsidies for the last-mile connection to 307 households, leaving \$39,047,476 dedicated for the middle-mile portion, common costs, connections to CAIs & Native American communities, and other infrastructure.

The CASF-funded Redwood Coast Connect Consortium solicited Inyo to build this project in an effort to improve communications between the North Coast and inland California, provide economic benefits to the region, and because it would pass, and thus

be in position to serve, many CASF priority areas.¹ Digital 299 provides potential safety benefits because it plans to offer service to five community fire stations as well as two CAL FIRE stations and the Trinity County Sheriff's office, six medical and health institutions, and includes areas that are at risk for wildfires and earthquakes.

II. Applicant Request

In August 2015, Inyo submitted an application for the Digital 299 Project and requested \$50,971,897 (70 percent of the then-total project estimated costs of \$72,816,995) for the project. As originally proposed, the project would serve the same middle-mile footprint, but also provide more than 1,000 households with last-mile service.

The total proposed project budget has since been adjusted downward to \$69,633,568, of which only \$67,073,674 is eligible for CASF funding, due to several factors, including challenges to the project (described in the next section) which removed the majority of last-mile households from the project and the applicant's re-routing as a result of those challenges. Additionally, comments on a draft version of this resolution promoted Communications Division (CD) to pro-rate 21.9 of 221.1 miles of this proposed project's linear fiber (about 9.9 percent) because it transverses served areas in Cottonwood, Redding, and Weaverville, making those portions ineligible for the full subsidy. For the remainder, CD determined that a 60.4-percent subsidy would be more appropriate than 70 percent because about 96 percent of households in the area traversed by Digital 299's middle-mile portion, and all the households to be served by the last-mile portion, are underserved rather than unserved.² CD determined that the grant request should now be \$40,502,691 (approximately 60.4 percent of \$67,073,674).

With this project, Inyo plans to: (1) bring ultra-fast and secure broadband backhaul to isolated underserved and unserved communities along the Highway 299 corridor and to those adjacent within a 15-mile distance from the backhaul; (2) establish peering points in Eureka and in the North Sacramento Valley for interconnection with other transport providers to ensure network reliability and improve the quality of educational, government, public safety, and health facilities in the project area; (3) improve cellular data services in a heavily forested,

¹ Priority areas for CASF funding were established by regional stakeholders to identify communities with a high-priority need of broadband infrastructure. For more information, see Resolution T-17443, adopted June 26, 2014, p. 10. Priority areas that could be served by this project include Big Bar, Big Flat, Burnt Ranch, Cedar Flat, and Del Roma in Trinity County, and French Gulch in Shasta County.

² CD determined that about four percent of households in Census Block Groups intersecting the project area were completely unserved. CD prorated the eligible budget excluding Lewiston (\$64,648,135) using the formula $[(.04 * \$64,648,135 * 0.7) + (.96 * \$64,648,135 * 0.6)]$ to determine the subsidy. That figure was added to the Lewiston subsidy ($\$2,425,539 * 0.6$) to determine the total subsidy.

mountainous region;³ and, (4) provide high-speed, last-mile service to the community of Lewiston in Trinity County.

Topography and Geography: The proposed route for Digital 299 travels about 283 miles through the rugged terrain of the northwestern mountains of California, where elevation ranges from 600 to 9,025 feet above mean sea level. Several deep river canyons traverse Trinity County and the resulting dissected relief has steep slopes. The adjacent areas of Shasta and Humboldt Counties that Digital 299 will serve are very similar in topography to Trinity County. The majority of Trinity County is under some form of public ownership, with federal ownership estimated at 78 percent. Trinity County has no traffic lights, no freeways, no parking meters, and no incorporated cities.

Applicant: Inyo currently operates in California and Nevada. On December 17, 2009, the Commission adopted D.09-12-036, granting Inyo's Certificate of Public Convenience and Necessity (CPCN) to provide limited facilities-based and resold local exchange telecommunications service. On February 12, 2015, the Commission adopted D.15-02-012 modifying Inyo's CPCN to a full certificated facilities-based CLEC.

Inyo also managed the \$109 million Digital 395 project, which was partially funded by the CASF,⁴ and was awarded a CASF grant to serve the Nicasio area of Marin County in July 2016.⁵

Inyo is commonly owned with Praxis Associates, Inc. Inyo will serve as the CASF grantee and be the legal owner/service operator of the grant-funded facilities. Inyo will subcontract the design and construction effort to Praxis and its wholly owned subsidiary, Praxis Optical Networks, Inc. Praxis will oversee the development of the grant application, facility network design and construction plan, including project management, environmental review, and construction permitting. Praxis Optical Networks, Inc. will complement the project team by bringing experienced construction staff that will perform many of the construction tasks and the initial activation of the new broadband facilities.

III. Notice and Challenges

³ This provision was not in the original application, but Inyo revised its application in order to mitigate the economic impact of not being able to serve last-mile households that were challenged.

⁴ Resolutions T-17232 (December 3, 2009) and T-17408 (September 5, 2013). CASF ultimately funded \$29 million of the Digital 395 project.

⁵ Resolution T-17523.

There were no commitments made by existing providers to upgrade service in the area before the November 1, 2014, “first right of refusal” deadline.

On August 10, 2015, CD posted the proposed project area map, census block groups (CBGs) and zip codes for Digital 299 on the Commission’s CASF webpage under “CASF Application Project Summaries” and also sent notice regarding the project to its electronic service list.

On August 25, 2015, CD received a timely challenge from Velocity Communications, Inc. (Velocity). On June 30, 2016, CD received Frontier Communication’s (Frontier) challenge to the proposed project. Both challengers claimed they either currently or would soon offer last-mile service to households in the area. Analyses of the two challenges are described in detail section IV (A) below.⁶

IV. Project Review

A. Project area eligibility and challenges

To qualify for the CASF program, an applicant is required to submit proof that the area is unserved or underserved by submitting shapefiles of the proposed project. CD reviews the submitted shapefiles and compares them with United States Census data and the California Interactive Broadband Availability map to determine whether the area is unserved or underserved.⁷ Once CD determines that the area is eligible either as an unserved or underserved area, CD evaluates all other information submitted by the applicant to determine if the project meets the requirements outlined in D.12-02-015.

In D.12-02-015, the Commission established guidance for funding middle mile projects where broadband infrastructure may have to pass served areas to reach an unserved or underserved area. Specifically, the Decision notes that the middle-mile portion must be an “indispensable” part of the plan to reach unserved and/or underserved communities, and that the applicant is required to pro-rate costs when projects include facilities in unserved, underserved, and served areas.⁸

⁶ Tsunami Wireless, a wireless Internet service provider, sent an e-mail expressing concern that the Commission would rely solely on the wireline served map included in the application materials when reviewing the project rather than the CA State Broadband Map. CD informed Tsunami Wireless that all technologies would be considered when determining project eligibility. This e-mail did not meet the requirements of a challenge and was not treated as one.

⁷ Available at <http://www.broadbandmap.ca.gov/map/>.

⁸ D.12-02-015, pp. 11-12; see also Guidelines, pp. 3-4.

As stated on page 2, approximately 21.9 miles of 221.1 miles (9.9 percent) of the middle-mile line that passed through served areas in Cottonwood, Redding, and Weaverville have been pro-rated out of the middle-mile and common costs budgets. This resulted in \$2,559,894 of the project budget being declared ineligible for CASF grant funding.⁹

Other than the above, no wired or mobile wireless providers offer served speeds in the Digital 299 Project area, according to the California Interactive Broadband Availability Map (Map) and reports from local stakeholders. While the Map indicates fixed-wireless providers (such as Com-pair, Tsunami Wireless, and Velocity) operate in the proposed project area, the Map classifies those areas as only “partially served” at best, in the absence of third-party validation.¹⁰ As part of its challenge, Velocity provided multiple speed tests in nine separate Census Block Groups (CBGs) that it claimed to serve. In all nine CBGs, Velocity’s claims showed service below the CASF standard of 6 mbps down/1.5 mbps up. Because these CBGs were widely distributed in areas typical of the terrain in the proposed project area as a whole, CD determined the Digital 299 Project area was uniformly underserved.

Regardless, in the area where last-mile service is to be provided by Digital 299, the lack of served speeds was verified by CD staff, and CD staff also determined that the middle-mile service is indeed “indispensable” in order to serve the community. Therefore, CD determined the proposed project met CASF criteria for middle-mile eligibility.

Challenges: As originally proposed, Digital 299 would have provided about 1,042 homes with last-mile service and also have a spur off the main route into the Trinity County community of Hayfork. As a result of the two challenges described below, Inyo modified the project to reduce the last-mile service to 307 homes and removed the Hayfork spur.

Velocity challenge: In its challenge letter, Velocity argued that it provided service to nine of the CBGs that the applicant identified as unserved.¹¹ To support its claims, Velocity submitted a

⁹ CD followed the formula on Page 4 of Appendix 1 of D.12-02-015 by calculating 9.9 percent of Digital 299’s middle-mile budget (\$4,338,624) and 9.9 percent of the common costs budget (\$781,164), adding them together (for a total of \$5,119,788), then equally pro-rating them into served and not-served portions to get a disallowance of \$2,559,894.

¹⁰ CD treats “partially served” areas not validated through testing as underserved, given the challenges of fixed-wireless in mountainous, heavily forested areas, as outlined in Resolution T-17495 for the Bright Fiber Project (December 3, 2015), pages 9 and 10.

¹¹ On September 29, 2015, CD received an email from Tsunami Wireless which stated that there are numerous Wireless Internet Service Providers (WISPs) along the project’s route whose coverage is not represented in the project summary map. However, further discussions revealed this to be a misunderstanding as the CA Interactive Broadband Availability Map does indeed include WISPs, provided they submit their coverage to the CASF Mapping team (which Tsunami subsequently provided).

list of its customers subscribing to at least 6 Mbps upstream and 1.5 Mbps downstream, or served speeds. CD staff also instructed Velocity to submit at least five speeds tests in each of the CBGs in which it claimed to provide service at served speeds.¹² The speed test results indicated unserved speeds in four of the challenged census blocks and underserved speeds in five of the challenged census blocks.

Table 1, below, summarizes the test results:

Table 1: Unserved and Underserved Areas in Velocity’s Challenge Area		
Census Block Group	Community	Status
0610500001011	Lewiston	Underserved
0610500001012*	Lewiston	Underserved
0610500001021	Lewiston	Unserved
0610500001012*	Douglas City	Underserved
0610500001013	Douglas City	Unserved
0610500003001	Hayfork	Underserved
0610500003003	Hayfork	Unserved
0610500003002	Hayfork	Underserved
0610500002001	Burnt Ranch	Unserved

* These CBGs include portions of both Lewiston and Douglas City.

Based on the submitted information, CD determined that Velocity’s challenge did not establish that it provided speeds at the CASF threshold of 6/1.5, therefore the area is eligible for CASF funding. It should be noted that all of the challenged CBGs, except those in the community of Lewiston, were also affected by the Frontier challenged described below.

Frontier challenge: In its challenge letter, Frontier argued that its recent acquisition of Verizon’s California service had introduced questions about the last-mile segment of the project. The Commission’s approval of Frontier’s transaction included a settlement agreement¹³ in which it committed to increase speeds throughout its California territory by leveraging the FCC’s Connect America Fund (CAF) II. Verizon had previously declined these funds. Frontier subsequently notified CPUC staff, and provided confidential details, about a CAF II priority

¹² Despite CD’s instructions, in some areas, Velocity submitted fewer than five speed tests.

¹³ Outlined in D.15-12-005.

project that overlaps the “Proposed Project Location” in the Digital 299 application.

Frontier’s planned build is pursuant to the requirement in Decision (D.)15-12-005 that Frontier first expend CAF II funds on the most remote and underserved portions of the Verizon service territory. Pursuant to FCC requirements, the broadband service to these households will be at a minimum speed of 10 mbps down and 1 mbps up. In the areas CD agreed to remove from the application, Frontier committed to build to 1,210 households at minimum speeds of 10/1.¹⁴ In addition, Frontier estimates that approximately 70 percent of these households will receive speeds greater than the minimum speed (12 mbps down and 2 mbps up, or higher). Though Frontier estimates a construction timeline that could begin enabling services by late 2017 or early 2018, it commits to complete construction no later than December 2020.

Based on that information, CD instructed Inyo and Frontier to negotiate and come to an agreement regarding what areas Inyo would serve after Frontier complied with the terms of D.15-12-005. Inyo and Frontier came to an agreement in late October 2016, resulting in Inyo reducing the proposed last-mile service from 1,032 households to 307. Inyo also removed the proposed spur to Hayfork because the households in that community would benefit from Frontier’s upgrades and therefore the spur would now not be economical for Inyo.

As of the date of this resolution, Frontier and Inyo are in negotiations to determine whether and under what terms Frontier will utilize the backhaul constructed through this project to serve households that Frontier previously committed to serve under the settlement agreement.

B. Project Criteria Evaluation

CD evaluated the application with respect to the scoring criteria defined in D.12-02-015, Appendix 1, Section VIII (Scoring Criteria). The scoring criteria include: (i) Funds Requested per Potential Customer, (ii) Speed, (iii) Financial Viability, (iv) Pricing, (v) Total Number of Households in the Proposed Area, (vi) Timeliness of Completion of Project, (vii) Guaranteed

¹⁴ Letter of October 7, 2016, from Charlie Born, Frontier manager of Government and External Affairs, to Rob Wullenjohn, CD Program Manager. Per the letter (paragraph 4): “Frontier’s CAF II build in this area will provide broadband to a total of approximately 1,210 households in the Hayfork, Weaverville, and Willow Creek exchanges. Pursuant to FCC requirements, the broadband service to these households will be at a *minimum* speed of 10 mbps down and 1 mbps up. In addition, Frontier estimates that approximately 70 percent of these households will receive speeds greater than the minimum speed (12 mbps down and 2 mbps up and higher). Frontier will complete construction no later than December 2020 in order to meet CAF II construction milestones and avoid substantial FCC penalties. However, Frontier currently estimates a construction timeline that could begin enabling services by late 2017/early 2018, assuming no unreasonable delay from environmental and permit approvals, middle mile construction, weather, and other variables.”

Pricing Period, and (viii) Low-Income Areas. CD also conducted a qualitative evaluation of the project area, existing infrastructure, and community needs.

Funds per household: CD notes that this project is primarily designed to construct middle-mile facilities, which would be available to community anchor institutions and adjacent communities. As such, only about 3.5 percent (\$2,425,359) of the total project budget is dedicated to funding last-mile connections in Lewiston. That total, divided by the 307 remaining eligible households, would result in a \$7,900 cost per household. At a 60 percent reimbursement rate, that would result in a \$4,740 subsidy per household, low in comparison to recently approved CASF grants.

Speed: Inyo proposes to offer 1 Gbps symmetrical speeds to last-mile customers and plans to configure the network so that the system can be upgraded to 10 Gbps, as future needs require. The proposed speed offering is about 167 times the minimum 6/1.5 Mbps benchmark set by the Commission. This project would match the previous best-speed mark approved in a CASF project. Digital 299 also offers the fastest speed offering when compared to grants awarded to past middle-mile projects.

Financial Viability: Based on financial information provided to the Commission in its application, Inyo is a fiscally sound company with sufficient ongoing revenue to complete the project. Initial projections indicated Digital 299 would have positive earnings before interest and taxes, although Inyo's updated, post-challenge financial projections predict that the removal of 725 households due to challenges raised project sustainability concerns unless other means of generating revenue were added.

To that end, Inyo amended its original proposal to add approximately 15 cell tower sites to Digital 299, at the cost of about \$3.1 million in initial investment. Inyo would not offer cellular service itself, but would allow existing providers to buy backhaul and tower space in order to improve their networks. Money earned through those sales would help offset income forgone by not connecting last-mile households Inyo gave up as a result of challenges.

Per both Inyo and the Redwood Coast Connect Broadband Consortium, the Highway 299 corridor has very poor cellular connectivity. Residents, local leaders and first responders note that drivers along the route face as much as three hours of travel with only intermittent coverage (e.g. at Willow Creek and Weaverville) available from microwave towers sited along the adjacent peaks. This lack of cellular service has a public safety impact. For example, during a 2015 wildfire, first responders spent the first critical day physically visiting residents for evacuation notice prior to turning to the urgent duties of firefighting during the first 24 hours of the conflagration.¹⁵

¹⁵ Letter from Michael Ort, CEO Praxis Communications, to CASF staff. E-mailed on November 2, 2016.

The initiative to add cell towers is supported by the Redwood Coast Connect Consortium, which stated that county supervisors, state and federal elected officials, as well as first responders, also favor tower installation. Inyo reports cellular companies have expressed strong interest in the arrangement and the company believes some of the matching funds challenges could be resolved with this approach. It is also probable that the towers will provide mobile broadband service to additional unserved or underserved households, although the number will be indeterminate until the final placement of towers and provider agreements are in place.

In terms of last-mile service, Inyo estimates 65.5 percent of households where last-mile service will be available will subscribe to its service. According to Inyo, Trinity County is one of five rural counties in the state that did not have a published County-specific broadband adoption rate. Therefore, Inyo determined the adoption rate by utilizing the statewide average adoption for rural areas, 53.6 percent and then adjusted this percentage upward by comparing the neighboring rural counties of Shasta, 63.5 percent and Humboldt, 63.6 percent. CD found this rate reasonable, as it is in line with rural take rates of fiber projects in other parts of California.

Pricing: Inyo has committed to a broadband pricing plan under the terms shown below for its 307 last-mile households for two years, starting from the beginning date of service. There is no long-term commitment by the consumer and activation and installation fees will be waived.

Product		Monthly Recurring Pricing
Data	Standard (1 Gbps Up/Down)	\$59.95
	Student Rate (25 Mbps Up/Down)	\$29.95
Voice* (VoIP line with unlimited national calling and features)	Standard	\$23.50
	Additional line	\$9.95
NOTES:	* Voice service is only available in bundle with data services. One-time charge for any additional service or service connection after initial network connection is \$50/visit.	

At \$0.03 per Mbps for the “Standard” tier, this Project achieved the CASF program’s highest historical score in the category of pricing.¹⁶

¹⁶ Price per megabit speeds are determined by dividing the advertised price for that tier by the sum of the combined download and upload speeds (in megabits) and then rounding to the nearest cent.

Households in Project Area: Based on the 2010 census block data for the Digital 299 area, there are about 1,032 households in the project area, although Inyo is proposing to directly serve only 307 of them.

As a middle-mile project, this project is primarily focused on bringing ultra-fast secure broadband backhaul to isolated unserved and underserved small communities, establishing peering points in Eureka and in the north Sacramento Valley for interconnection with other transport providers, and stimulating improvement of broadband speeds among existing last mile providers.

Timeliness of Completion: The applicant has submitted detailed planning documents, including a schedule with clear milestones to indicate it will complete construction of the project within 24 months from final permit approval. Actual construction is estimated to take 18 to 20 months, followed by an additional 90 days for activation and testing of the network.

Guaranteed Pricing Period: Inyo has committed to maintaining the quoted pricing plan for a minimum of two years for the last-mile homes served by its project, in accordance with the program's requirements.

Low-Income Areas: Based on the 2010 census block data, there are 1,032 households in the project area. According to US Census data, the average median household income for zip codes 96052, 96024, 96041, and 95527 (where Digital 299 initially planned to serve as a last-mile provider) is \$34,739, below the state average of \$61,094. Those zip codes have an average poverty rate of 23.2 percent (above the State poverty rate of 15.9 percent). Thus, the project is serving generally serving low-income areas having above-average rates of poverty.

C. Safety and Community Input Considerations

Safety considerations: The proposed project will enhance public safety. Specifically, the California Department of Forestry and Fire Protection identifies areas of Humboldt, Trinity, and Shasta counties as having high to very-high fire risk.¹⁷ Real-time management of geographic information systems (GIS) data by first-responders via a robust broadband connection can mitigate wildfire hazard. Additionally, Humboldt County is in one of the most hazardous earthquake zones in the state.¹⁸ In both of these situations, communications infrastructure, such as that to be added by Digital 299, will take on a critical role.

¹⁷ See Appendix D - Fire Hazard Map created using data from the California Department of Forestry and Fire Protection.

¹⁸ California Department of Conservation, Earthquake Shaking Potential for the North Coast, http://www.seismic.ca.gov/pub/intensitymaps/ncoast_county_print.pdf.

Additionally, adding a mostly underground wired system such as this one to existing aerial and microwave-based communications facilities in the area provides redundant infrastructure in an area with limited access points.¹⁹ Finally, the proposed cellular towers in the area would facilitate both local residents and travelers' communications with first responders in an area that currently has poor cellular telephone coverage.

Community support: The Redwood Coast Connect Consortium proposed this project in an effort to serve numerous priority areas along the Highway 299 corridor. The area is underserved, and, in some locations, unserved, with schools and government institutions unable to obtain adequate bandwidth to meet programmatic and constituent needs. Digital 299 aims to directly provide last-mile services in the community of Lewiston and will potentially offer bandwidth for Frontier or other providers to serve the communities of Douglas City, Hayfork, and Burnt Ranch.

Additionally, this project will provide last-mile service to Humboldt State University, which sent a letter supporting the project as critical to its distance learning plans, and to its Marine Lab. The United States Department of Agriculture (USDA) also sent a letter in support of Digital 299 because of the benefits that broadband infrastructure can have on rural communities, including access to technologies such as precision irrigation machinery, global markets for local products, and public safety equipment. The Northern California Tribal Chairmen's Association also supported this project, which will directly benefit the Hoopa Valley Tribal Council, the Blue Lake Rancheria, and the Trinidad Rancheria.

Finally, State Senator Mike McGuire, whose district includes both Trinity and Humboldt counties, sent a letter in support of this project because it will support unserved and underserved residential and business customers and CAIs in some of the most remote areas of his district.

D. Staff Recommendation for Funding

CD has determined that Inyo's grant application for the Digital 299 Project areas qualifies for underserved funding. Further, CD's evaluation of the project finds that Digital 299 meets or exceeds the project criteria established in D.12-02-015. It is noted, however, that the project is very costly in totality and on a per-household basis. Therefore, this project has been evaluated primarily based on its middle-mile project components, rather than its last-mile service. While the last-mile service to 307 underserved households is welcome, the primary purpose of the

¹⁹ On Dec. 12, 2016, an estimated 100,000-cubic yard rockslide cut off Highway 299 west of Weaverville, closing the highway, which remained closed except for local traffic as of February 3, 2017. <http://www.sacbee.com/news/local/article121455507.html>

Digital 299 Project is to provide deployment of high quality advanced information and communications technologies in areas that would not otherwise have service.²⁰ In particular, the project will provide high-speed communications infrastructure, safety benefits, and improve cellular voice and data reception in the areas it traverses.

Digital 299 is also designed to support the broadband needs of tribal lands in the adjacent area. In particular, project proponents have met with leadership at Blue Lake Rancheria, the Hoopa Reservation and the Trinidad Rancheria for specific plans to serve. Due to the Hoopa Reservation's location, a 19-mile fiber lateral²¹ has been designed to reach the Hoopa tribe's lands, the largest reservation in the state of California (with the second-largest population of enrolled members). At each of these tribal lands, fiber optic connections will be provided to the main tribal office for each of these entities, or other equivalent location (except casinos) designated by tribal leadership. In addition to these designated community anchor institutions, the project has identified a number of tribal schools and health care clinics for additional connection.

The middle-mile aspect of this project provides a foundation for even broader economic development benefits for the region. For example, outside the scope of work proposed in this application, project proponents are working with other agencies to create an offshore cable landing site at or near Humboldt Bay to secure a California-based solution for terminating trans-Pacific broadband cables, which will help California maintain its competitive edge in Pacific-rim commerce for decades to come. Project proponents also see opportunities for developing hosting facilities or data centers in Trinity County, which presently has a low-cost and under-utilized electrical power capacity. Further, the middle-mile portion of the project will provide numerous points of interconnection along its route at which other service providers may interconnect. These points include service to local carriers' central offices, several repeater nodes, and as many as 200 interconnection cabinets where existing ISPs that choose to purchase backhaul from Inyo may hook in. Inyo pledges to be "carrier neutral" in selling bandwidth to local providers.

With those factors in mind, CD recommends the grant application for Digital 299, as modified post-challenge, be approved.

²⁰ Of note is the fact that almost 96.5 percent of the total budget of this project is for common costs and middle-mile funding, without which the last-mile portion could not operate. The middle-mile portion will also provide critical backhaul for other last-mile providers, such as Frontier. The 3.5 percent of the grant designated for last-mile services amounts to \$1,455,215.

²¹ Other laterals included in this project include one to Trinidad designed to serve Humboldt State University's Marine Laboratory, one along the northwest shore of Arcata Bay to hook to a potential marine cable landing, and a third lateral to Cottonwood designed to connect with fiber optic cables in the Interstate 5 corridor.

V. Compliance Requirements

Inyo is required to comply with all the guidelines, requirements, and conditions associated with the grant of CASF funds as specified in D.12-02-015. Such compliance includes, but is not limited to:

A. California Environmental Quality Act (CEQA)

All CASF grants are subject to California Environmental Quality Act (CEQA) requirements unless the project is statutorily or categorically exempt pursuant to the CEQA Guidelines.

Prior to any construction activity, Inyo is required to seek further authority from the Commission for such activity by filing a Proponent's Environmental Assessment (PEA) pursuant to Commission Rule of Practice and Procedure 2.4; and must undergo an environmental review pursuant to the CEQA (California Public Resources Code § 21000 et seq.).

Inyo should contact the Supervisor of the Commission's Energy Division CEQA Unit well in advance of a contemplated filing to (a) consult with staff regarding the process of developing and filing a PEA; (b) provide for cost recovery per Rule of Practice and Procedure 2.5; and (c) enter into a Memorandum of Understanding to allow the Energy Division to initiate the retention of an environmental contractor to perform the environmental review.

Inyo may file a completed CEQA review conducted by another agency acting as the Lead Agency pursuant to CEQA. Inyo should make every effort to ensure that the Commission's CEQA Unit is aware of and included in the CEQA process if another agency acts as the CEQA Lead Agency. Inyo should contact the Supervisor of the Commission's Energy Division CEQA Unit well in advance of a contemplated filing to consult with staff regarding the applicability of another agency's CEQA review.

Inyo must provide the PEA prior to the first payment. The Commission cannot release funds for the construction project until the Commission has completed CEQA review.

B. Deployment Schedule

The Commission expects Inyo to complete the project within 24 months from start date (as determined by the procedure below). If Inyo is unable to complete the proposed project within the 24-month timeframe, it must notify the Commission, by sending a letter to CD's Director as soon as Inyo becomes aware of this possibility. The Commission may reduce payment for failure to notify CD's Director and satisfy this requirement.

C. Execution and Performance

CD and Inyo shall determine a project start date after the CASF grant recipient has obtained all approvals. Should Inyo or its contractor fail to commence work at the agreed upon time, the Commission, upon five days written notice to the CASF recipient, reserves the right to terminate the award. In the event that Inyo fails to complete the project in accordance with the terms of approval granted by the Commission, Inyo must reimburse some or all of the CASF funds that it has received. Inyo must complete all performance under the award on or before the termination date of the award.

D. Performance Bond

Generally, under CASF rules, when matching funds for a project come in whole from an existing capital budget and the applicant operates under a CPCN, no performance bond is required. In this case, Inyo has been seeking matching funds from private, state, and federal partners, thus triggering the need for a performance bond.

Inyo has requested that the performance bond requirement be waived for this project, as it was with the Digital 395 Project. Inyo contends that the scale of the Digital 299 Project makes it exceedingly difficult to secure a performance bond for the full project value, as CASF rules require. For its Digital 395 Project, Inyo was granted a waiver to the bond requirement because that project also had significant Federal matching funds, which the Commission regarded as a secure source of capital funds.²² No such outside funding is present for Digital 299. Therefore, a performance bond is required for this project.

E. Price Commitment Period

The minimum required price commitment period for broadband service to all last-mile households within the project area is two years. Inyo guarantees the price of service for two years.

F. Project Audit

The Commission has the right to conduct any necessary audit, verification, and discovery during project implementation/construction to ensure that CASF funds are spent in accordance with Commission approval.

Inyo's invoices will be subject to a financial audit by the Commission at any time within three years of completion of the work.

²² Resolution T-17232, Finding of Fact No. 20, p. 16.

G. Providing Voice Service

Inyo has certified that its VoIP telephone service will meet the Federal Communications Commission (FCC) standards for E-911 service. Additionally, the Network Interface Devices will have a minimum battery backup capacity of eight hours.

H. Reporting

All grantees must submit quarterly progress reports on the status of the project irrespective of whether grantees request reimbursement or payment.

Before full payment of the project, Inyo must submit a project completion report. Progress reports shall use the schedule for deployment, major construction milestones and costs submitted in the proposal; indicate the actual date of completion of each task/milestone as well as problems and issues encountered, and the actions taken to resolve these problems and issues during project implementation and construction; and identify future risks to the project.

Inyo shall also include test results showing the download and upload speeds on a CBG and ZIP code basis in the final completion report. Recipients must certify that each progress report is true and correct under penalty of perjury.

I. Submission of Form 477

The FCC currently requires broadband providers to biannually submit the Form 477, which includes speed data. While there is an imperfect match between the data that is reported in the Form 477 and to the CASF, CD staff finds that the Form 477 data will be useful to document CASF deployment for the new service area of the carrier. CASF recipients shall submit a copy of their Form 477 data directly to the Commission, under General Order 66-C, when they submit this data to the FCC for a five-year period after completion of the project.²³

VI. Payments to CASF Recipients

Submission of invoices from and payments to CASF grant recipients are usually made at 25-percent completion intervals, in accordance with Section XI of Appendix 1 of D.12-02-015 and according to the guidelines and supporting documentation required in D.12-02-015. Inyo maintains, however, that the 25-percent interval was designed to address smaller projects and that administrative and cash flow issues would suggest that drawing down its grant at \$2

²³ Approval of the California Advanced Services Fund (CASF) Application Requirements and Scoring Criteria for Awarding CASF Funds (2008) Cal. P.U.C. Res. No. T-17143 at 4.

million intervals would be more appropriate.

CD recommends a one-time waiver to the “25-percent rule” for this project. Having smaller payment requests would allow CD staff to review only \$2 million in reimbursement requests at a time, rather than \$10 million in such requests. This process would allow CD to conduct a more-thorough review of such requests and improve both the speed and accuracy of its analysis of reimbursement requests. Moreover, \$2 million intervals were previously used in the Digital 395 project, and demonstrably simplified CD’s analytical process in that case.

Payment to Inyo shall otherwise follow the process adopted for funds created under P. U. Code §270. Payments are generally processed by the Commission within 20-25 business days. This includes review time for both CD and Administrative Services. The State Controller’s Office (SCO) requires an additional 14- 21 days to issue payment from the day that requests are received by SCO from Administrative Services.

VII. Comments on Draft Resolution

In compliance with Public Utilities Code § 311(g), a notice letter was e-mailed on December 23, 2016, informing all parties on the CASF Distribution List of the availability of the draft of this resolution for public comments at the Commission's website at <http://www.cpuc.ca.gov/PUC/documents/>.

CD received seven formal written comments, and many informal comments, by the January 30, 2017 comment deadline. They are presented below in alphabetical order.

The *California Cable and Telecommunications Association* (CCTA) objected to the project, claiming: 1) It provides a grant for infrastructure designed to compete with an existing private provider; 2) Inyo must submit proof that the middle-mile backhaul is indispensable to last-mile service; 3) Middle-mile areas that pass through served areas must be pro-rated out of the subsidized area; and 4) The Project appears targeted at large customers in Cottonwood and Redding. CD’s replies are as follows: 1.) There is no indication that competing with existing providers is Inyo’s plan. 2.) The lack of backhaul in the area is well documented. 3.) Staff concurs, and has pro-rated almost 10 percent of the middle-mile budget (as shown on page 2). 4.) CCTA’s objection on this point is moot because Cottonwood and Redding will only partially be CASF funded, due to the pro-ration.

The *California Center for Rural Policy* (CCRP) supported the project, requesting: 1) The matching funds be raised to 70 percent because it is necessary for the project to be financially viable (four previous endeavors along the Highway 299 corridor have failed due to financial issues); 2) The Commission should find “an alternate approach” to the

bonding requirement; 3) Inyo be allowed to file a joint Federal (NEPA) and State (CEQA) document in order to save time and money; and 4) The CCRP supports the inclusion of the cell towers as a safety measure because “CCRP cannot emphasize enough how dangerous this remote region can be.” CD’s replies are as follows: 1.) The funding level is consistent with the guidelines as stated in D.12-02-015, which limit funding for underserved areas to 60 percent. 2.) CASF rules (D.12-02-015, Guidelines, p. 11) require a performance bond. Previous bond waivers were due to the applicant having the majority of funding from other sources, which is not the case here. 3.) This resolution does not preclude Energy Division (which handles the Commission’s CEQA work) from entering such an arrangement. 4.) CD concurs – Resolution T-17424 is an example where a CASF resolution included elements designed as safety improvements, in that case the project was approved because it both provided broadband and “safety-enhancing landline telephone service in an area where there is currently none.”

The *California Emerging Technology Fund* (CETF) supported the project, requesting that: 1) Matching funds be raised to the 70 percent level. 2.) That Inyo be granted a waiver on the bonding requirement. 3.) The Commission “recognize and reinforce” matching funds from other agencies (such as the California State University system, the Department of Education, and others). CD’s replies are as follows: 1.) The funding level is consistent with the guidelines as stated in D.12-02-015, which limit funding for underserved areas to 60 percent. 2.) CASF rules (D.12-02-015, Guidelines, p. 11) require a performance bond. Previous bond waivers were due to the applicant having the majority of funding from other sources, which is not the case here. 3.) Such funds are recognized, however, unlike Inyo’s Digital 399 Project, they do not constitute the majority of funding.

Charter Communications, Inc., (through its legal representative Sheppard, Mullin, Richter & Hampton, LLP), requested deferment of a decision until Inyo demonstrated it will not use CASF funds for Cottonwood and Redding. Charter claimed: 1.) neither Inyo nor the resolution provided a list of the anchor institutions it planned to serve. 2.) Use of funding to “overbuild” existing served areas is prohibited by CASF rules. 3.) Inyo must show any middle-mile through served areas is indispensable and pro-rate it out. CD’s responses are as follows: 1.) Inyo provided a full list of anchor institutions to CD on August 11, 2015. None were in Cottonwood or Redding (although 15 were in the now-excised Hayfork area and have been removed from consideration). The list is available upon request. 2.) CD concurs, the middle-mile section through “served” areas has been pro-rated, as shown in section IV-A. 3.) CD concurs – the fiber passing through Redding and Cottonwood is indispensable to the last-mile service, and the resolution has been modified to pro-rate fiber passing through served areas in those communities, as well as Weaverville (see section IV-A).

Frontier Communications supported the award, both for the middle-mile and last-mile

portions, but did have several notes including: 1.) Frontier contends that the award of cell towers would be legal error and that CASF rules do not allow for the funding of cell tower. 2.) CASF has other ways to improve the Project's financial viability, such as raising the grant to 70 percent. 3.) Frontier requested numerous changes in the language of the original draft resolution, particularly in a section that stated that "Frontier also committed to find ways to upgrade the speed of any households in the area that would not meet the California standard of 6/1.5 after the CAF II work, including the possibility of applying for a CASF grant." Frontier claims that it did not make an "absolute commitment" to bring all homes in the area up to the California broadband standard, instead noting that it is "considering all options" to increase broadband speeds in the region. CD's responses are as follows: 1.) CD does not concur – there are no rules that preclude funding for cell towers. It should be noted that Inyo is not providing service itself, only installing infrastructure for mobile providers to install equipment on, akin to having a fiber connection cabinet for landline provides. Also, as mentioned in the CCRP comments, there is a significant public safety consideration. CD will limit funding for such towers to areas currently unserved or underserved by all technologies, including mobile broadband (as shown in Appendix E). 2.) The funding level is consistent with the guidelines as stated in D.12-02-015, which limit funding for underserved areas to 60 percent. 3.) The language has been modified at Frontier's request. It should be further noted that if Frontier does not bring the affected customers up to the California minimum of 6 mbps download *and* 1.5 mbps upload, then the area would be eligible for future CASF grant applications.

Inyo Networks, as the applicant, thanked CD for its work on the resolution and filed several comments. In summary, Inyo asked: 1.) The CASF grant be raised back to 70 percent for the middle-mile portion, while maintaining a 60-percent subsidy for Lewiston; 2.) The Commission implement an "alternative approach" to the bonding requirement stipulated in D.12.02.015 so that "Inyo can proceed while mitigating the State's risks;" and 3.) Modify permitting guidelines for the approximately 70 miles of project right of way within Federal jurisdiction to allow for a joint CEQA and NEPA approach. CD's replies are as follows: 1.) The funding level is consistent with the guidelines as stated in D.12-02-015, which limit funding for underserved areas to 60 percent. 2.) CASF rules (D.12-02-015, Guidelines, p. 11) require a performance bond. Previous bond waivers were due to the applicant having the majority of funding from other sources, which is not the case here. 3.) This resolution does not preclude Energy Division (which handles the Commission's CEQA work) from entering such an arrangement.

Velocity Communications, Inc., provided comments as well. Velocity requested: 1.) The "investigation into the facts be reopened," primarily because it had upgraded service in several areas, and has other upgrades pending, after the May 2016 challenge. 2) The

Commission “recognize” its upgraded service in “downriver” Trinity County Communities such as Burnt Ranch. 3.) Velocity be given the opportunity to provide data that it now has served speeds in other communities, such as Lewiston. CD’s replies are as follows: 1.) Velocity has not submitted any such information to CD’s mapping team. 2.) No “downriver” communities are proposed for last-mile service, so such service is moot. 3.) CD does not concur. Velocity has not submitted any information regarding higher speeds to CD’s mapping team and its own comment notes that several of the mentioned upgrades are not yet in place.

Numerous informal comments, (i.e., not properly served to all parties on the CASF service list) were received as well. A summary is presented here for the completeness of the record:

- The *Corporation for Education Network Initiatives in California* (CENIC), wrote a letter in support of both the project and Inyo’s request to raise the subsidy to 70 percent. The letter from CENIC also stated the project would help narrow the digital divide in California and that “The area proposed to be served by this project lacks affordable and robust middle-mile infrastructure, which causes unaffordable and insufficient last-mile connections.”
- Four *private citizens* also contacted CD during the comment period, with three of them supporting the project but asking that its last-mile coverage be expanded, and the fourth stating he opposed the project because that last-mile area is too small and therefore the project is not a good value.
- During the comment period, on January 24, 2017, representatives from *Com-Pair Services*, a WISP in Trinity County, sent an e-mail to CD staff to “challenge” the Digital 299 Project. The “challenge” was neither submitted during the formal challenge period (which ended in late August 2015) nor properly served to all parties on the CASF service list as a comment on the resolution. Com-Pair claimed that it served customers in Lewiston, Douglas City, and Hayfork (the latter two of which have been removed from the Digital 299 Project), that the Digital 299 Project “will cause significant harm to our business,” and that Digital 299 is “tantamount to a government-sponsored takeover of areas that we currently serve.” Com-Pair had previously submitted FCC 477 data to the Commission, including the location of a number of customers, that indicated it provided fixed wireless Internet in Lewiston. As noted on page 4, however, CD treats areas where fixed-wireless service was not verified through testing as underserved, given the challenges of fixed-wireless in mountainous, heavily forested areas. Based on the tardiness of Com-Pair’s submission and the lack of testing evidence, CD declines to modify the determination in the resolution that Lewiston is underserved.

VIII. Findings

1. Inyo filed an application for CASF funding for its Digital 299 Project on August 10, 2015. Inyo subsequently modified its application in response to staff requests, challenges, and on its own initiative. The project area is spread over 2,400 square miles between Redding and the California coast encompassing portions of Shasta, Trinity, and Humboldt counties. The proposed project will construct both middle-mile and last-mile facilities that will enable Internet speeds of up to 1 Gbps symmetrical download and upload to 307 unserved last-mile households and up to 102 community anchor institutions.
2. The project will also support three tribal lands, as well as potential future data centers and coastline broadband infrastructure. The project would also provide last-mile broadband Internet service to areas that are currently underserved and provide a starting point for further privately funded economic benefits in the area, such as a potential trans-Pacific cable landing.
3. Inyo is eligible for a \$40,502,691 infrastructure grant, with \$1,455,215 dedicated to serving 307 unserved last-mile households in the Lewiston area..
4. CD posted the proposed project area map, CBGs and zip codes for Inyo's Digital 299 Project on the Commission's CASF webpage under "CASF Application Project Summaries" on August 10, 2015. CD received two challenges to this project.
5. CD investigated a challenge from Velocity Communications, Inc., and determined Velocity did not provide served speeds in the challenged areas, therefore the proposed Digital 299 Project was eligible to build there.
6. Frontier's challenge noted that its acquisition of Verizon included a settlement agreement in which it committed to increase speeds throughout its California territory by leveraging the FCC's Connect America Fund (CAF) II. Verizon previously declined these funds. CD agreed with Frontier's assertion that Frontier would be improving speeds in areas proposed for the Digital 299 Project.
7. CD recommended that Frontier and Inyo came to an agreement as to which areas each company will respectively provide with last-mile service. Frontier and Inyo are, as of the date of this resolution, also in negotiations to determine whether and under what terms Frontier will utilize the middle-mile facilities constructed through this project to serve households that Frontier committed to serve under the settlement agreement.
8. After resolving the Frontier challenge, Inyo resubmitted its budget on November 2,

2016. The resubmission included minor changes to the project boundaries, the removal of the majority of last-mile household, and a provision to build as many as 15 mobile telephone towers as a revenue-generating measure.
9. The Digital 299 Project has public support from numerous stakeholders in the area, several of which specifically support the addition of mobile telephone towers as a safety enhancement for this remote area.
 10. CD reviewed and analyzed data submitted for Inyo's Digital 299 CASF grant application to determine the project's eligibility for CASF funding. This data included, but was not limited to: proof of a CPCN from the Commission; descriptions of current and proposed broadband infrastructure; geographic information system (GIS) formatted shapefiles mapping the project areas; assertion that the area is underserved; number of potential subscriber households and average incomes; project construction schedule; project budget; proposed pricing and commitment period for new subscribers; and financial viability of the applicant.
 11. CD reviewed the submitted shapefiles, which mapped the proposed broadband deployment using United States 2010 Census data and the California Interactive Broadband Availability Maps, with availability data current as of December 31, 2015. These maps helped to verify the availability and speed of any broadband service, where available. CD determined that the project area has both underserved and unserved areas.
 12. Based on its review, CD determined that the project qualifies for funding under D.12-02-015 and recommends Commission approval of CASF funding for Inyo's Digital 299 Project.
 13. Inyo is required to comply with all guidelines, requirements, and conditions associated with the granting of CASF funds as specified in D.12-02-015 and must submit the FCC Form 477, as specified in T-17143.
 14. The Commission has determined that the project must undergo CEQA review prior to construction and the Commission cannot release funds for construction activities until CEQA review is complete. Inyo is required to comply with the requirements set forth in the CEQA Section of the Resolution. Inyo must provide the PEA prior to the first payment.
 15. CD recommends a one-time waiver to the "25-percent rule" for this project. Having smaller payment requests would allow CD staff to review only \$2 million in reimbursement requests at a time, rather than the usual 25-percent increments. This

process would allow CD to conduct a more-thorough review of such requests and improve both the speed and accuracy of its analysis of reimbursement requests. CASF funds may be awarded after Inyo has expended \$2 million, and for each \$2 million thereafter, which will result in at least ten reimbursements for Inyo.

16. A notice letter was e-mailed on December 23, 2016, informing all applicants filing for CASF funding, parties on the CASF distribution list of the availability of the draft of this Resolution for public comments at the Commission's website <http://www.cpuc.ca.gov/PUC/documents/>. This letter also informed parties that the final confirmed Resolution adopted by the Commission will be posted and available at this same website. Seven formal and numerous informal comments were received, resulting in changes to the resolution's pro-ration of the middle-mile portion, the total budget eligible for subsidy, and minor grammatical edits.
17. The Commission finds CD's recommendation to fund Inyo's project, as summarized in Appendix A, to be reasonable and consistent with Commission orders and, therefore, adopts such recommendation.

THEREFORE, IT IS ORDERED that:

1. The Commission shall award \$40,502,691 to Inyo for the Digital 299 Project as described herein and summarized in Appendix A of this Resolution.
2. The program fund payment of \$40,502,691 for this project in underserved and unserved areas shall be paid out of the CASF Infrastructure Grant Account in accordance with the guidelines adopted in D.12-02-015, including compliance with CEQA.
3. Inyo may request payments in \$2 million increments from CASF instead of the 25-percent increments specified in D.12-02-015. Payments to the CASF recipient shall otherwise be in accordance with Section XI of Appendix 1 of D.12-02-015 and in accordance with the process defined in the "Payments to CASF Recipients" section of this Resolution.
4. The CASF fund recipient, Inyo, shall comply with all guidelines, requirements and conditions associated with the CASF funds award as specified in D.12-02-015 and must submit the FCC Form 477 to the Commission, as specified in Resolution T-17143.
5. Inyo must submit a full Proponent's Environmental Assessment (PEA) to the Energy Division prior to the first payment of CASF grant funds. No CASF funds may be disbursed for construction activities prior to the completion of the CEQA review.
6. Inyo must complete all construction covered by the grant on or before the grant's termination date. If the project will not be completed within the 24-month time frame, Inyo must notify the Director of CD as soon as it becomes aware of this possibility. If such notice is not provided, the Commission may reduce payment for failure to satisfy this requirement.
7. Inyo must submit project completion reports for both the middle-mile portion and the last-mile portion prior to receiving final payment.
8. Only mobile telephone towers constructed in areas unserved or underserved areas will be eligible for CASF subsidies.
9. If Inyo fails to complete the project in accordance with the terms outlined in

D.12-02-015 and with the terms of the Commission's approval, as set forth in this resolution, Inyo must reimburse some or all the CASF funds it has received.

This Resolution is effective today.

I hereby certify that this Resolution was adopted by the Public Utilities Commission at its regular meeting on February 9, 2017. The following Commissioners approved it:

TIMOTHY J. SULLIVAN
Executive Director

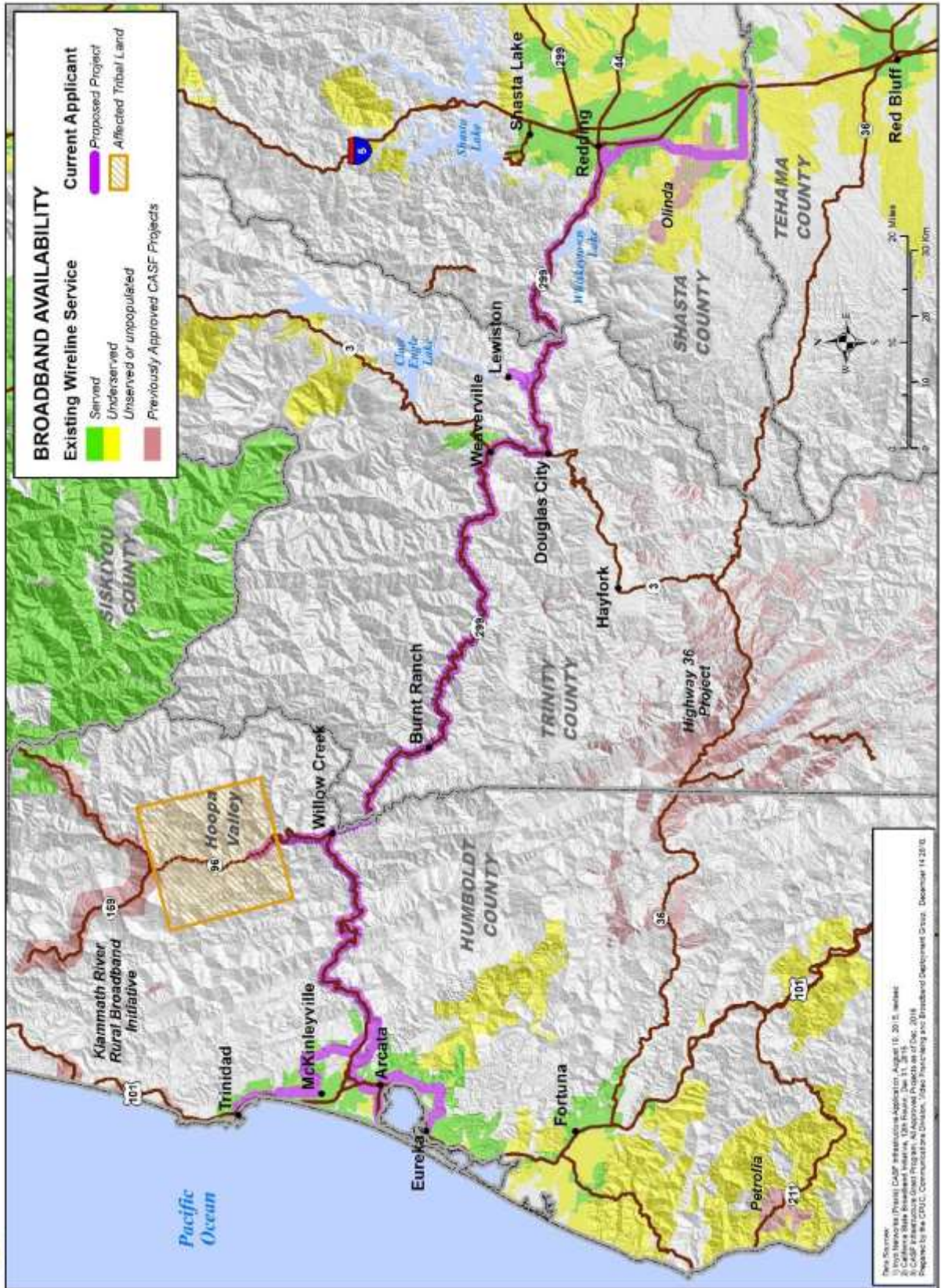
Appendix

APPENDIX A
Resolution T-17548 – Digital 299 Project
CASF Applicant Key Information

<i>Project Name</i>	Inyo Network’s Digital 299 Project
<i>Project Plan</i>	The proposed project will provide high-capacity backhaul infrastructure and interconnection points to communities along the California State Route 299 corridor. Additionally, the project will directly connect 307 unserved households to last-mile Internet services capable of 1 Gbps symmetrical throughput using underground and aerial fiber facilities, with as many as 102 schools, colleges, research institutions, hospitals, clinics, public safety, tribal lands, and other Community Anchor Institutions also able to take advantage of such connections.
<i>Project Size (in sq. miles)</i>	Approximately 2,400
<i>Download/Upload speed</i>	Maximum 1 Gbps symmetrical speeds
<i>Location</i>	Shasta, Trinity, and Humboldt counties
<i>Community Names</i>	Numerous along Highway 299 corridor between Arcata and Weaverville
<i>Census Block Groups</i>	Last-mile service to be provided in the following CBGs: 0610500001011, 0610500001012, 0610500001021
<i>Median Household Income (of proposed last-mile service area)</i>	\$34,739
<i>Zip Codes</i>	Numerous
<i>Estimated potential last-mile subscriber size</i>	307 households
<i>Applicant expectations</i>	201 subscribers (65.5 percent)
<i>Pricing Plan (Monthly)</i>	Data: 1 Gbps Symmetrical - \$59.95; Student Rate: 25 Mbps Symmetrical - \$29.95
<i>Deployment Schedule</i>	24 Months
<i>Proposed Project Budget</i>	\$69,633,568, of which \$67,073,674 is CASF eligible
<i>Amount of CASF funds (60.4 percent of eligible)</i>	\$40,502,691
<i>Other Funding Sources (40 percent)</i>	\$29,130,877

Appendix B
 Resolution T-17548 Inyo Networks Digital 299 Project
 Project location Map and Existing Wireline Service

CASF - PROPOSED INFRASTRUCTURE PROJECT - Inyo Networks - Digital 299



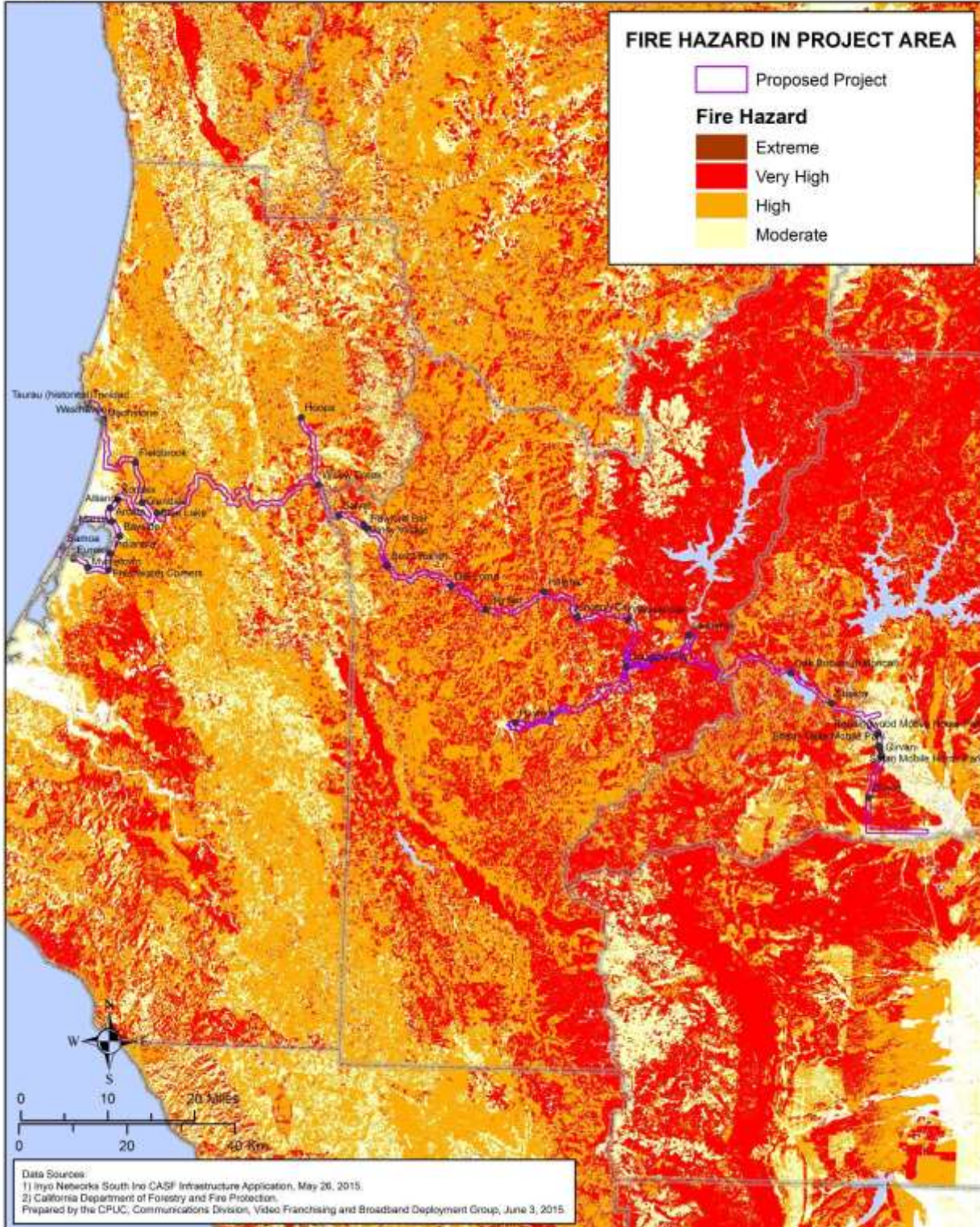
Appendix D

Resolution T-17548 Inyo Networks Digital 299 Project

Fire Hazard Map (reflects original project route – Hayfork spur has since been removed)



INYO NETWORKS - DIGITAL 299 Fire Hazard



Appendix E

Resolution T-17548 Inyo Networks Digital 299 Project

Mobile Broadband Service (reflects original project route – Hayfork spur has since been removed)



CASF - PROPOSED INFRASTRUCTURE PROJECT
Inyo Networks - Digital 299 - August 10, 2015

