NATIONAL TRIBAL BROADBAND SUMMIT

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TARA SWEENEY

ASSISTANT SECRETARY – INDIAN AFFAIRS

NATIONAL TRIBAL BROADBAND SUMMIT

DOUG HOELSCHER

DIRECTOR

WHITE HOUSE OFFICE OF INTERGOVERNMENTAL AFFAIRS

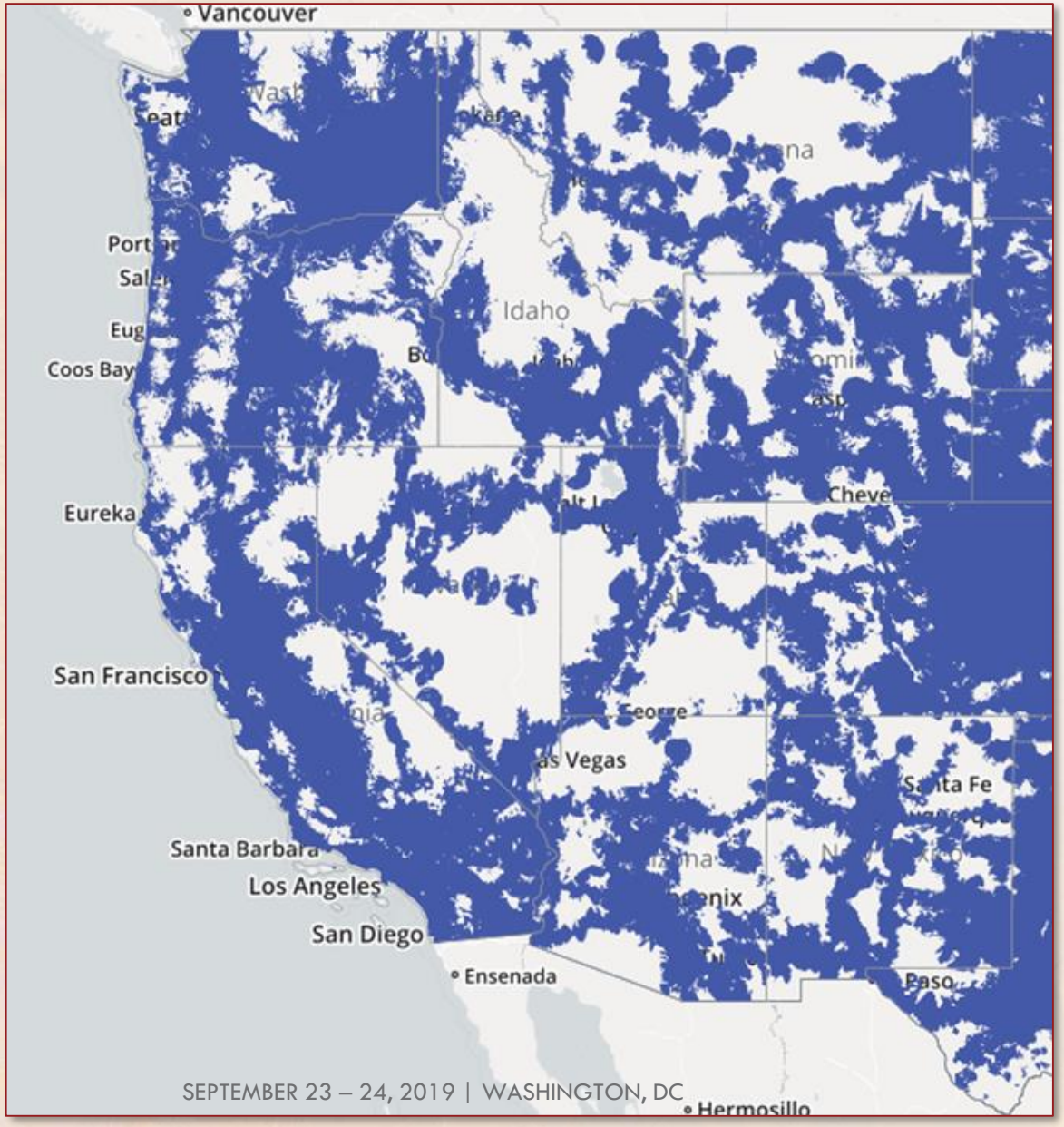
NATIONAL TRIBAL BROADBAND SUMMIT

KATE MACGREGOR

DEPUTY CHIEF OF STAFF

EXERCISING THE AUTHORITY OF THE

DEPUTY SECRETARY OF THE INTERIOR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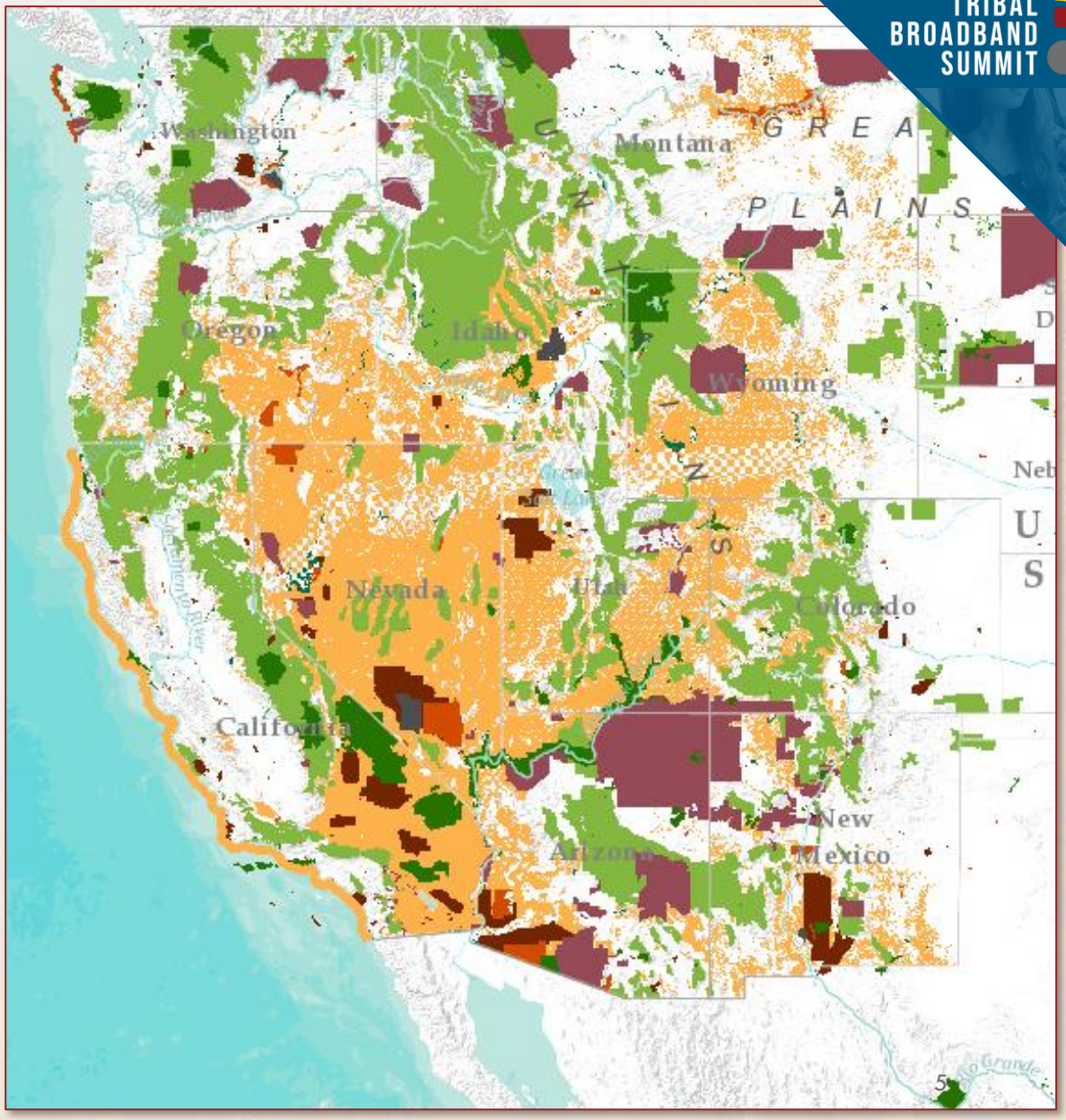
Idaho
Eureka
San Francisco
Santa Barbara
Los Angeles
San Diego
Ensenada
Hermosillo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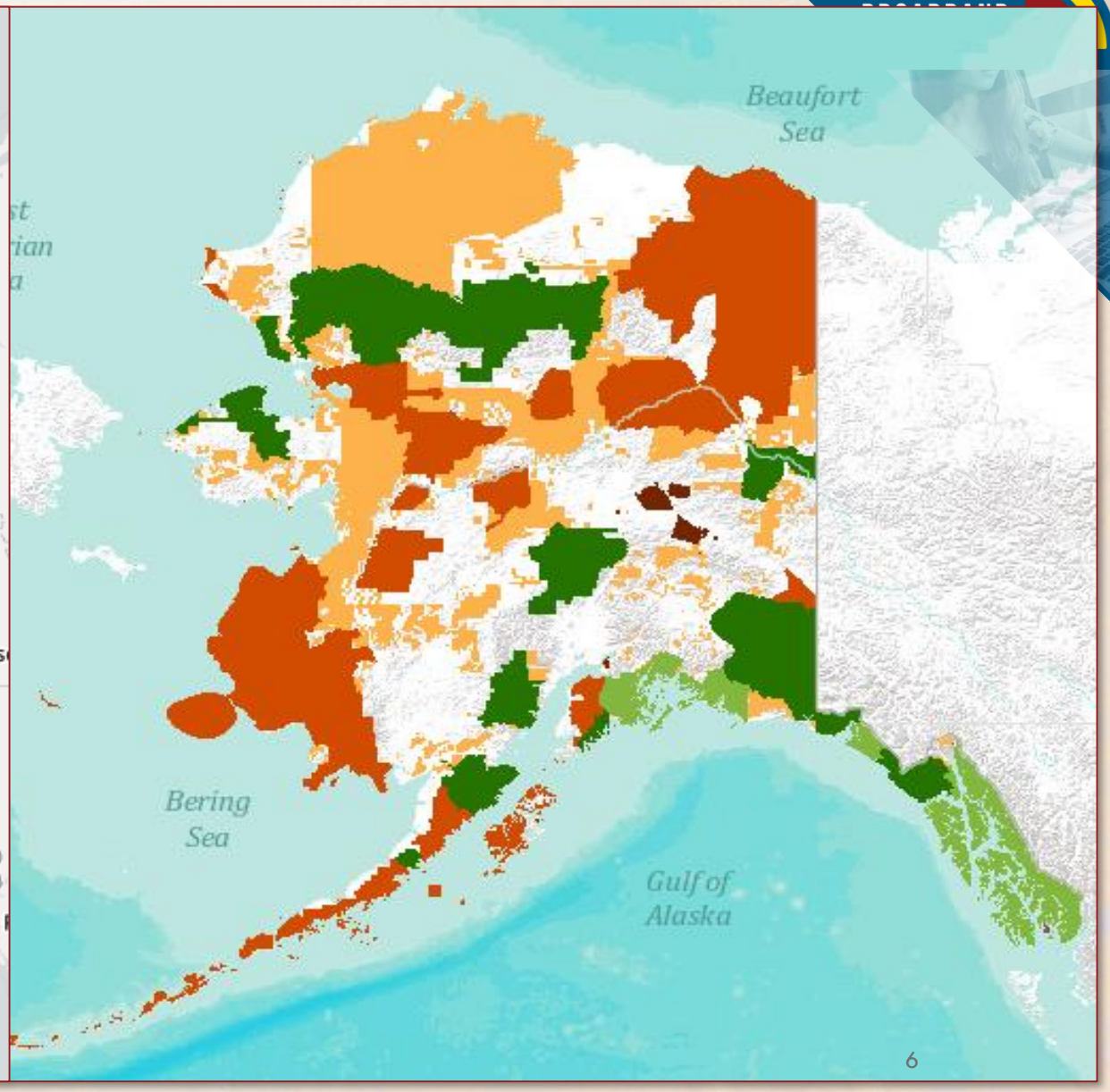
Montana
GREAT PLAINS
Oregon
Idaho
Wyoming
Nevada
Utah
Colorado
California
New Mexico
Arizona

Utqiagvik
Nome
Alaska
Bethel
Anchorage
Yuk.
Whitehorse
Juneau
Kodiak


Beaufort Sea
Bering Sea
Gulf of Alaska

Telecommunication Infrastructure Sites and Cases

Washington DC Office of Energy, Minerals, and Realty

https://www.doi.gov/broadband

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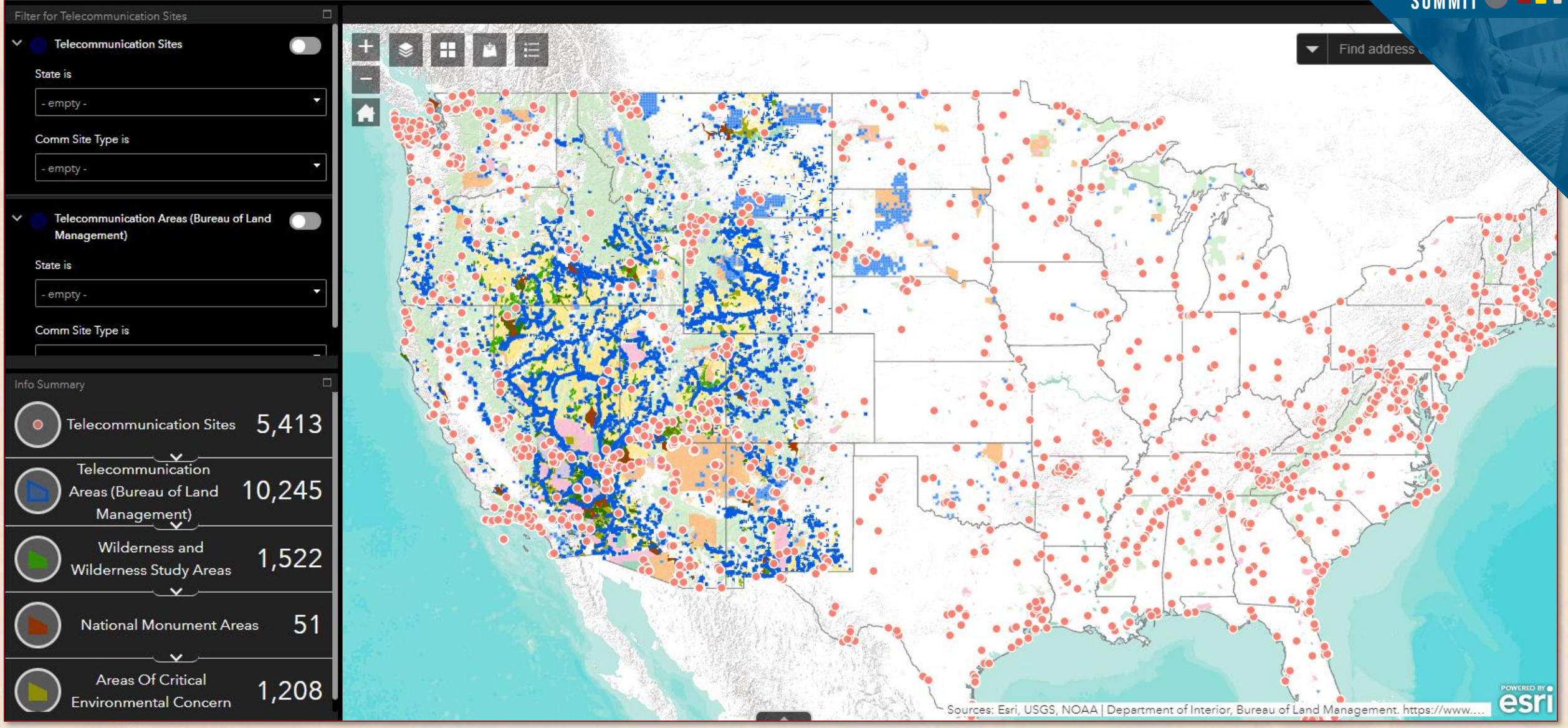

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AJIT PAI

CHAIRMAN

FEDERAL COMMUNICATIONS COMMISSION

NATIONAL TRIBAL BROADBAND SUMMIT

NANCY WEISS

GENERAL COUNCIL

INSTITUTE OF MUSEUM AND LIBRARY SERVICES

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JENNIE LICHTER

DEPUTY DIRECTOR

DOMESTIC POLICY COUNCIL

NATIONAL TRIBAL BROADBAND SUMMIT

LIGHTNING TALKS

IMPACT OF BROADBAND ON NATIVE COMMUNITIES

NATIONAL TRIBAL BROADBAND SUMMIT

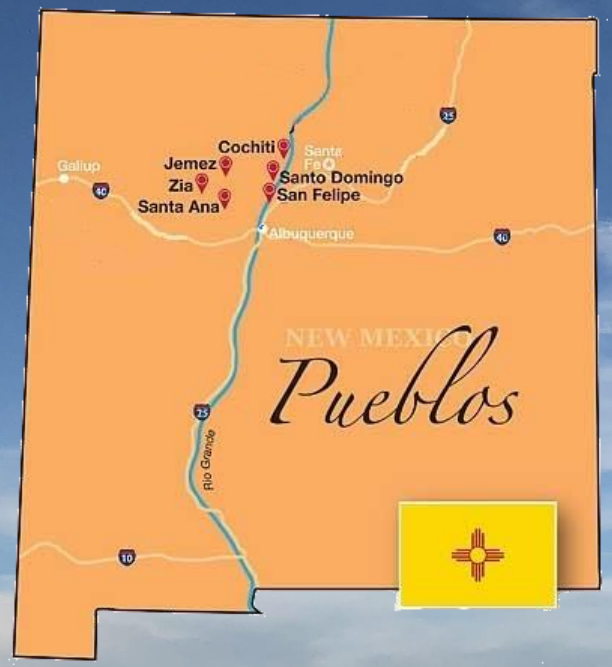
TYLER SCRIBNER

POLICY ANALYST, NATIONAL CONGRESS OF AMERICAN INDIANS

NATIONAL TRIBAL BROADBAND SUMMIT

KIMBALL SEKAQUAPTEWA

CHIEF TECHNOLOGY DIRECTOR, SANTA FE INDIAN SCHOOL



Jemez-Zia Pueblo Tribal Consortium

San Diego Riverside (NM Charter) • Walatowa High School (NM Charter)
Jemez Tribal Library • Zia Tribal Library

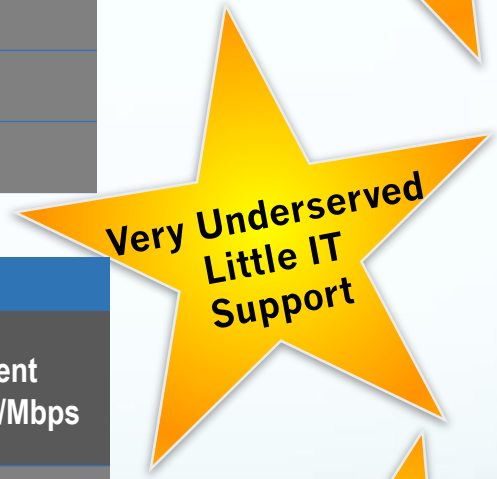
Middle Rio Grande Pueblo Tribal Consortium

Pueblo de Cochiti Tribal Library • Santo Domingo Tribal Library
San Felipe Pueblo Community Library • Santa Ana Pueblo Community Library

Beginnings

MRG CONSORTIUM MEMBERS	BEFORE			
School/Library Name	Connection Type/Qty	Current Speed (Mbps)	Monthly Recurring Cost (MRC)	Current Cost/Mbps
Santa Ana Community Library	Microwave	70	$960	$13.71
San Felipe Pueblo Community Library	2 x T1s	3	$700	$233.33
Santo Domingo Tribal Library	Satellite	3	$116	$38.67
Pueblo de Cochiti Tribal Library	LTE Mi Fi	10	$1,400	$140.00

JEMEZ / ZIA CONSORTIUM MEMBERS	BEFORE			
School/Library Name	Connection Type/Qty	Current Speed (Mbps)	Monthly Recurring Cost (MRC)	Current Cost/Mbps
Jemez Pueblo Community Library	1x DSL	12	$95	$7.92
Jemez Day School	6x T1s	9	$2,549	$283.24
San Diego Riverside Charter School	2x DSL	12	$1,200	$100.00
Walatowa Charter High School	3x T1s	4.5	$550	$122.22
T'siya Pueblo Elementary School	1x T1	1.5	$303	$202.00
Pueblo of Zia Tribal Library	Ethernet	10	$0	$0.00



Broadband in Tribal Libraries

Critical community infrastructure for computer services
• K-12: After school homework and live tutoring often using cloud apps, Kahn Academy
• Adults: On-line classes for college degrees, GED, basic literacy, certificates, i.e. food handlers
• On-line college applications, scholarships, FAFSA
• Video-Conferencing for language and/or culture
• Website Portals for on-line banking, bill pay
• Required on-line testing for NM Drivers License, Food Handlers Classes, Permits and Safety course for NM Game and Fish
• Social services for senior, disabled and veterans e.g. Social Security, Medicare, Veteran benefits
• Filing federal and state taxes, managing refunds • Job searches, applications, resume writing, unemployment claims
• Public Internet access for personal devices, including parking lot Wi-Fi
• Center for connectivity during emergencies

SD Youth ages 18-20 update their resumes and apply for federal and tribal financial aid for college

Winner of a logo contest receives an iPad that cannot be used in the pueblo due to connectivity issues

Broadband in Schools

Conduit of teaching, learning, and school operations
• Using Internet content in teaching and learning, *e.g.*, Kahn Academy, digital textbooks, YouTube
• Communication and collaboration with students and teachers, *e.g.*, Google Classroom
• Mobile devices provide new opportunities but require high-speed Internet, *e.g.*, iPads, Kindles, and Chromebooks
• NASIS Parent Portal to check assignments and grades (BIE)
• Mandatory online testing, *e.g.*, PARCC, MAPS
• Distance learning, *e.g.*, college dual enrollment
• Videoconferencing back to Tribes in native language classes
• Virtual field trips across the globe
• Administration: Online human resources, accounting, phone, safety, and e-mail systems

Santa Fe Indian School students use computers in all classes in all grades as part of instruction

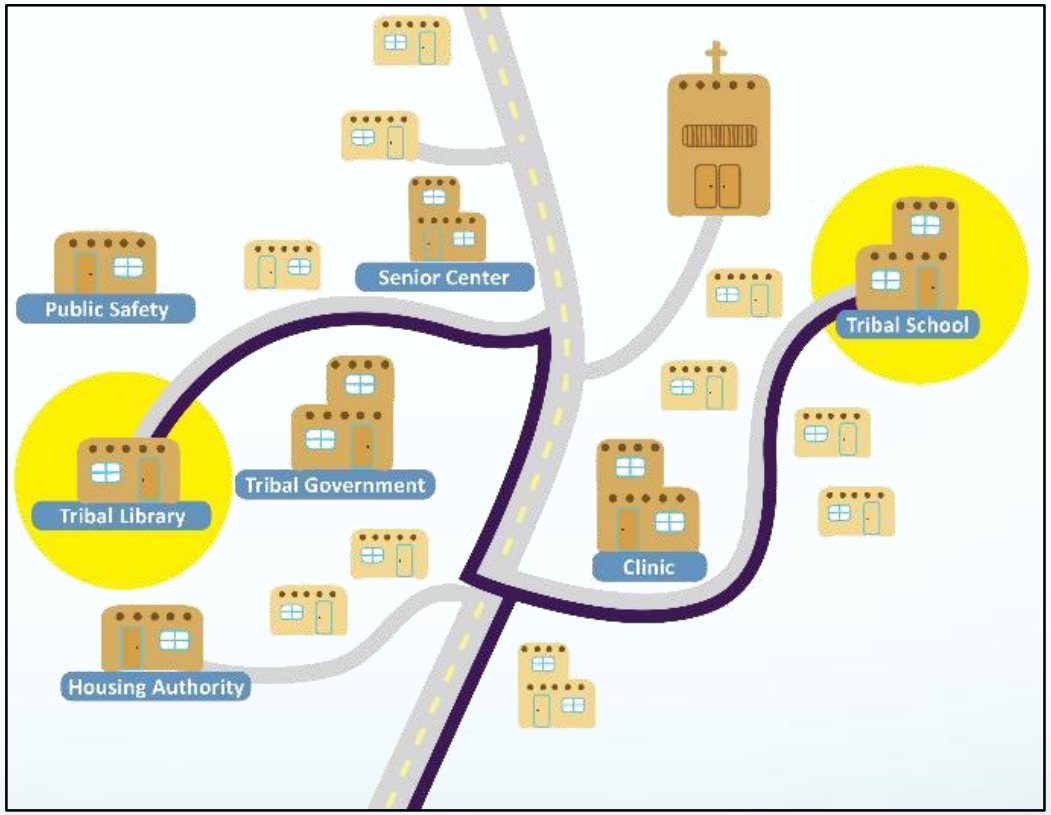
Funding Opportunity

FCC USF E-rate Program

- K-12 Schools and libraries
- Up to 90% discount off Internet bills
- New: Discounts on fiber construction
- Limited time: Additional 5% discount if match is from Tribal, state, federal source

Opportunity

- Bring Broadband – high-speed Internet – to schools and libraries
- Fiber optic benefits: Can be easily increased to meet future needs, symmetrical uploads and downloads
- Tribal ownership

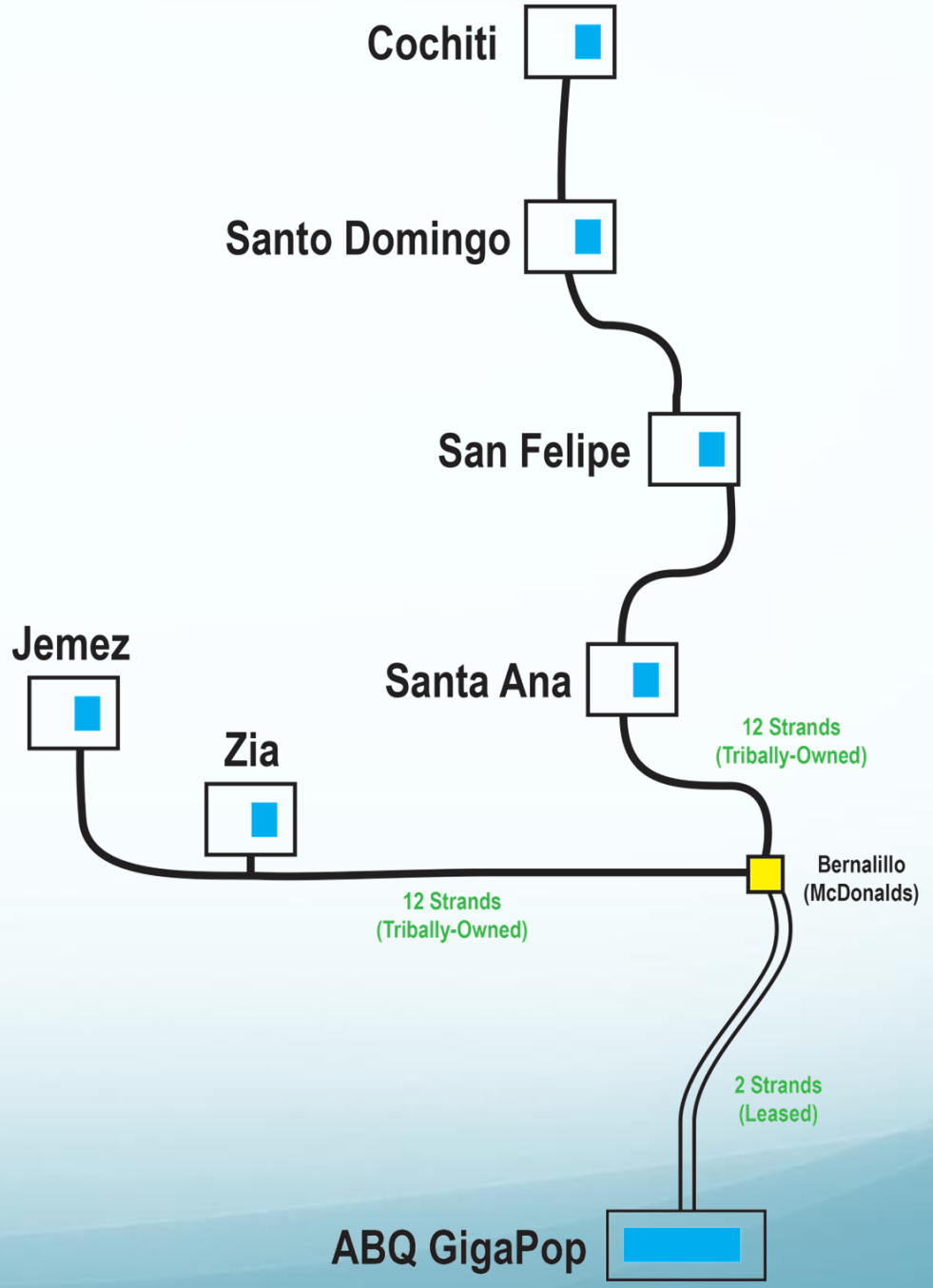


Fiber Optic Backbone to the schools and libraries

Our Approach

Tribal Consortia

- Network Design – Aimed for 505 Marquette
- Aggregated Demand
- Geography-based Approach Tribal Schools and Libraries Tribal Libraries Partner
- Critical partnerships: Santa Fe Indian School, AMERIND Risk, University of New Mexico
- New Mexico Broadband Deficiencies Correction Program – NMPED, NMDoIT, PFSA, E-rate Central, Education Superhighway
- Industry partners: Layer 1 Construction (Kelly Cable of NM) and Carrier Electronics (Juniper)



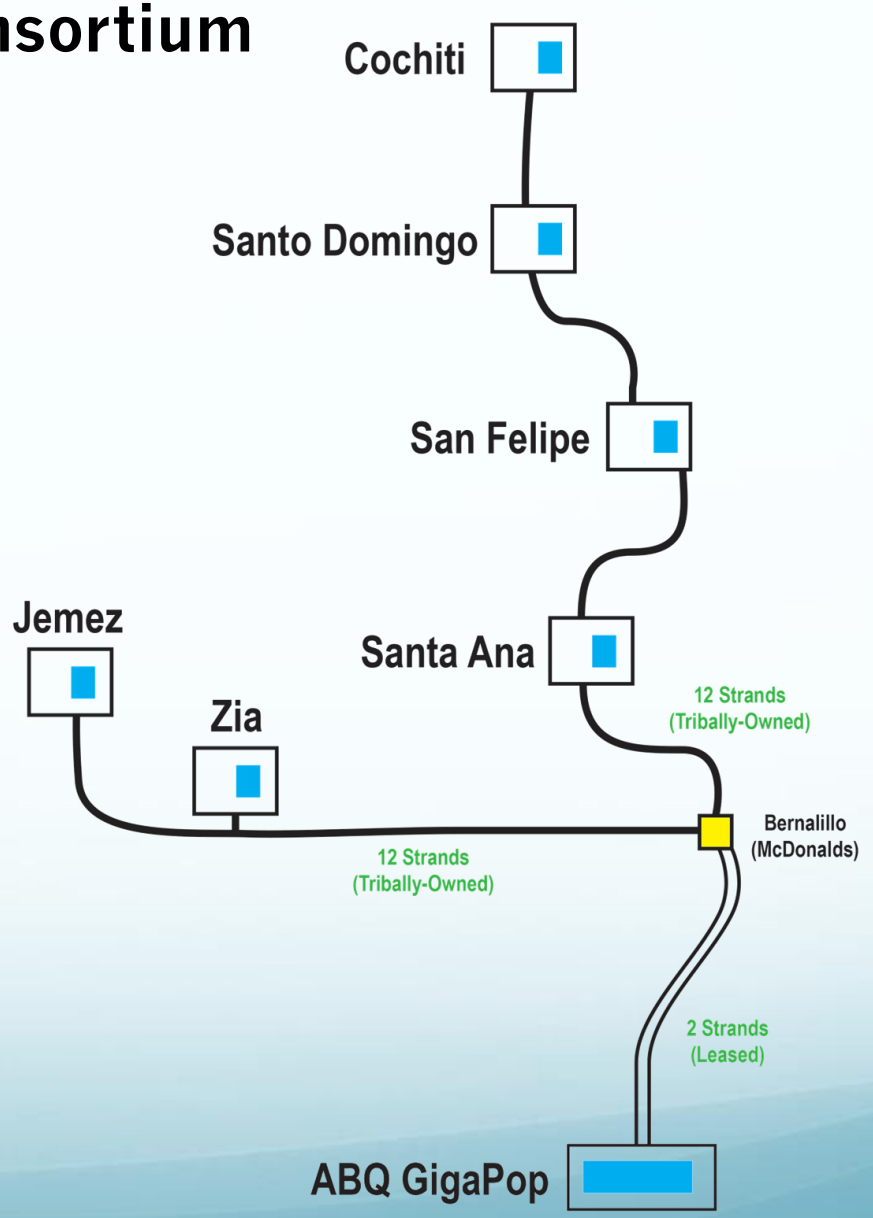
Middle Rio Grande Pueblo Tribal Consortium
Jemez-Zia Pueblo Tribal Consortium

Fiber Optic Backbone

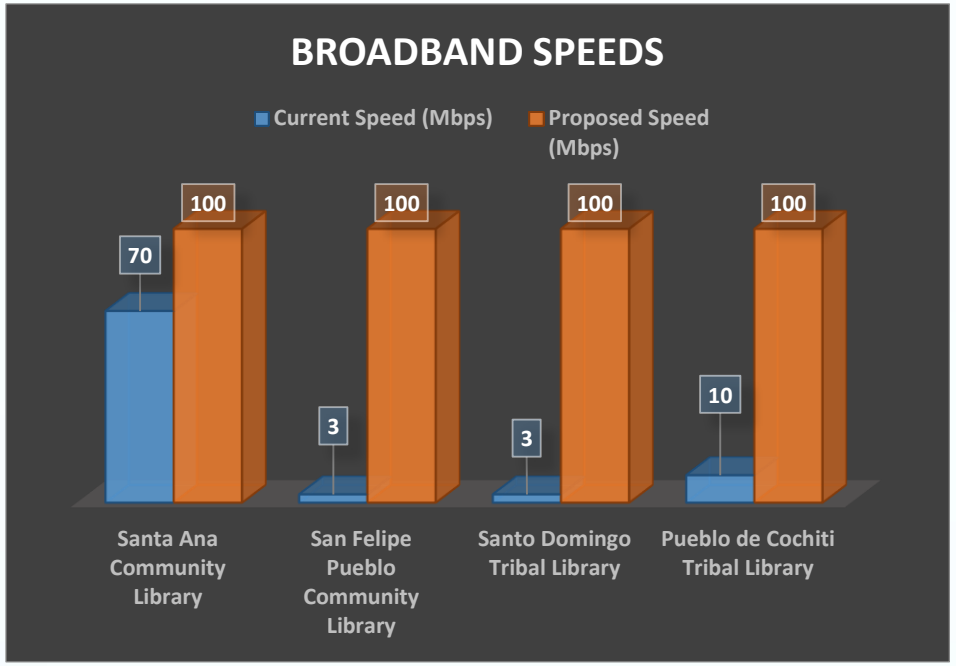
- Two Networks
- Connects 2 Schools and 6 Libraries
- Intended to also connect 3 BIE – operated Schools
- 12 Strand 60-mile network from Albuquerque to Cochiti
- Leased Dark Fiber
- Utilizes DWDM equipment
- ~ $4 million asset

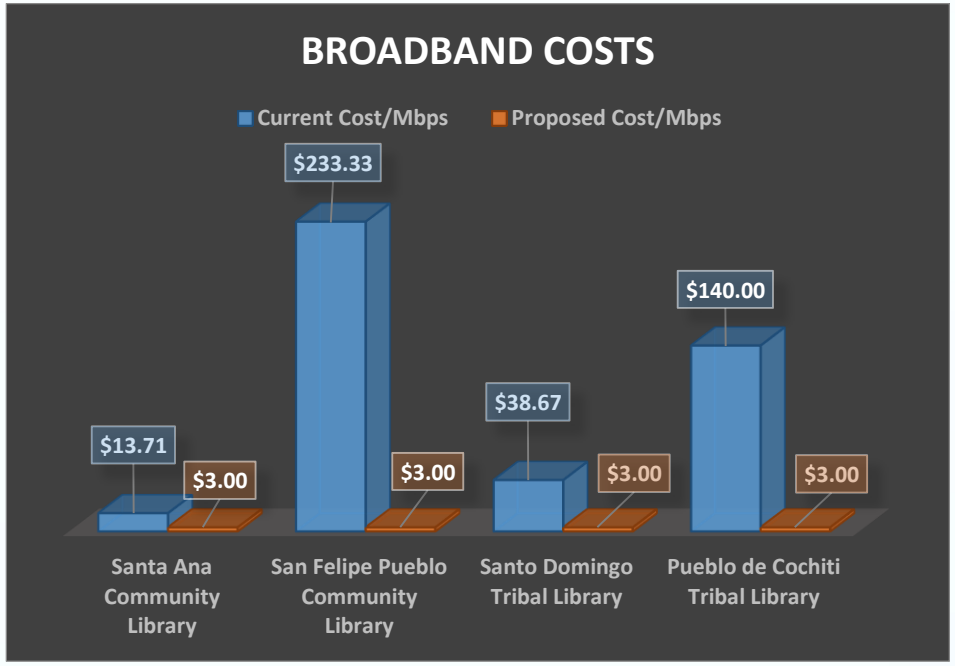
Benefits

- Coming from within the tribes
- Tribally-Owned and Operated



Before / After





MRG CONSORTIUM MEMBERS	BEFORE					AFTER				
School/Library Name	Connection Type/Qty	Old Speed (Mbps)	Monthly Recurring Cost (MRC)	Old Cost/Mbps	Old Cost/Mbps w/E Rate	Connection Type/Qty	New Speed (Mbps)	Monthly Recurring Cost (MRC)	New Cost/Mbps	New Cost/Mbps w/E Rate
Santa Ana Community Library	Microwave	70	$960	$13.71	N/A	Fiber	100	$300	$3	30 cents
San Felipe Pueblo Community Library	2 x T1s	3	$700	$233.33	$23.33	Fiber	100	$300	$3	30 cents
Santo Domingo Tribal Library	Satellite	3	$116	$38.67	$3.87	Fiber	100	$300	$3	30 cents
Pueblo de Cochiti Tribal Library	LTE Mi Fi	10	$1,400	$140.00	$14.00	Fiber	100	$300	$3	30 cents

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NICOLE UMAYAM

DIGITAL INCLUSION LIBRARIAN, ARIZONA STATE LIBRARY, ARCHIVES AND PUBLIC RECORD

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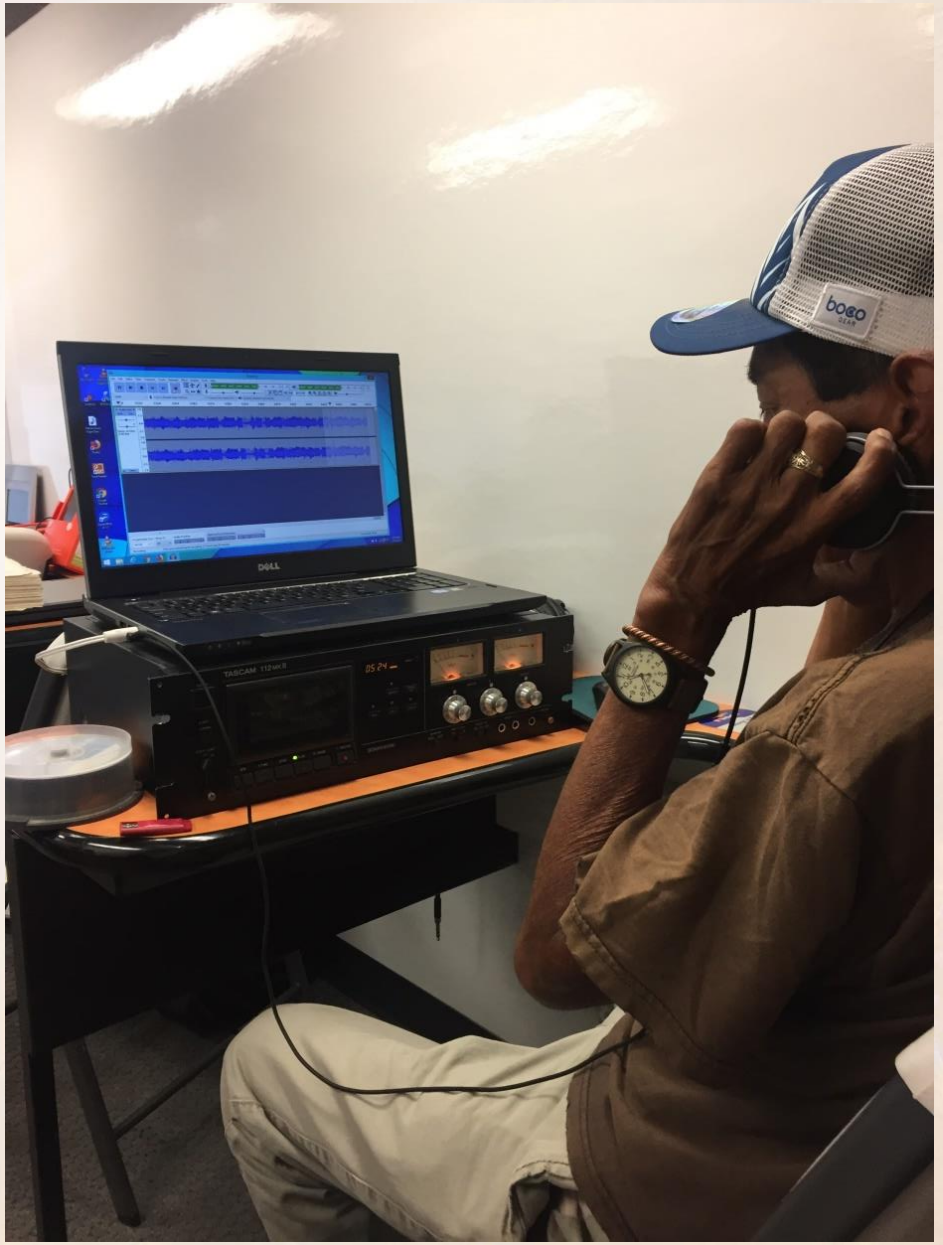

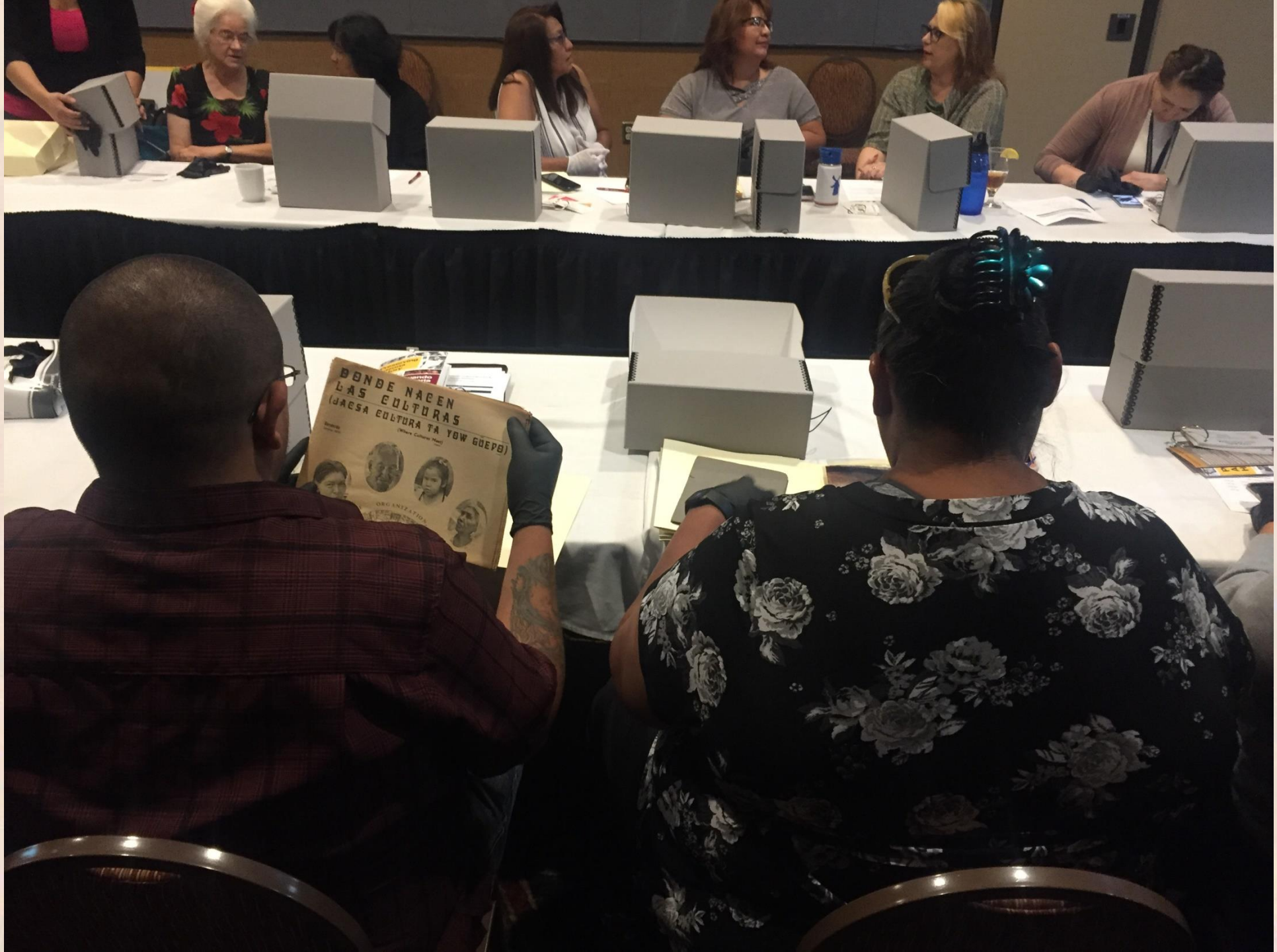

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IMPACT OF BROADBAND ON NATIVE COMMUNITIES

ANN TREACY, MODERATOR, BLANDIN FOUNDATION

TYLER SCRIBNER, NATIONAL CONGRESS OF AMERICAN INDIANS

KIMBALL SEKAQUAPTEWA, SANTA FE INDIAN SCHOOL

NICOLE UMAYAM, ARIZONA STATE LIBRARY, ARCHIVES, AND PUBLIC RECORD