

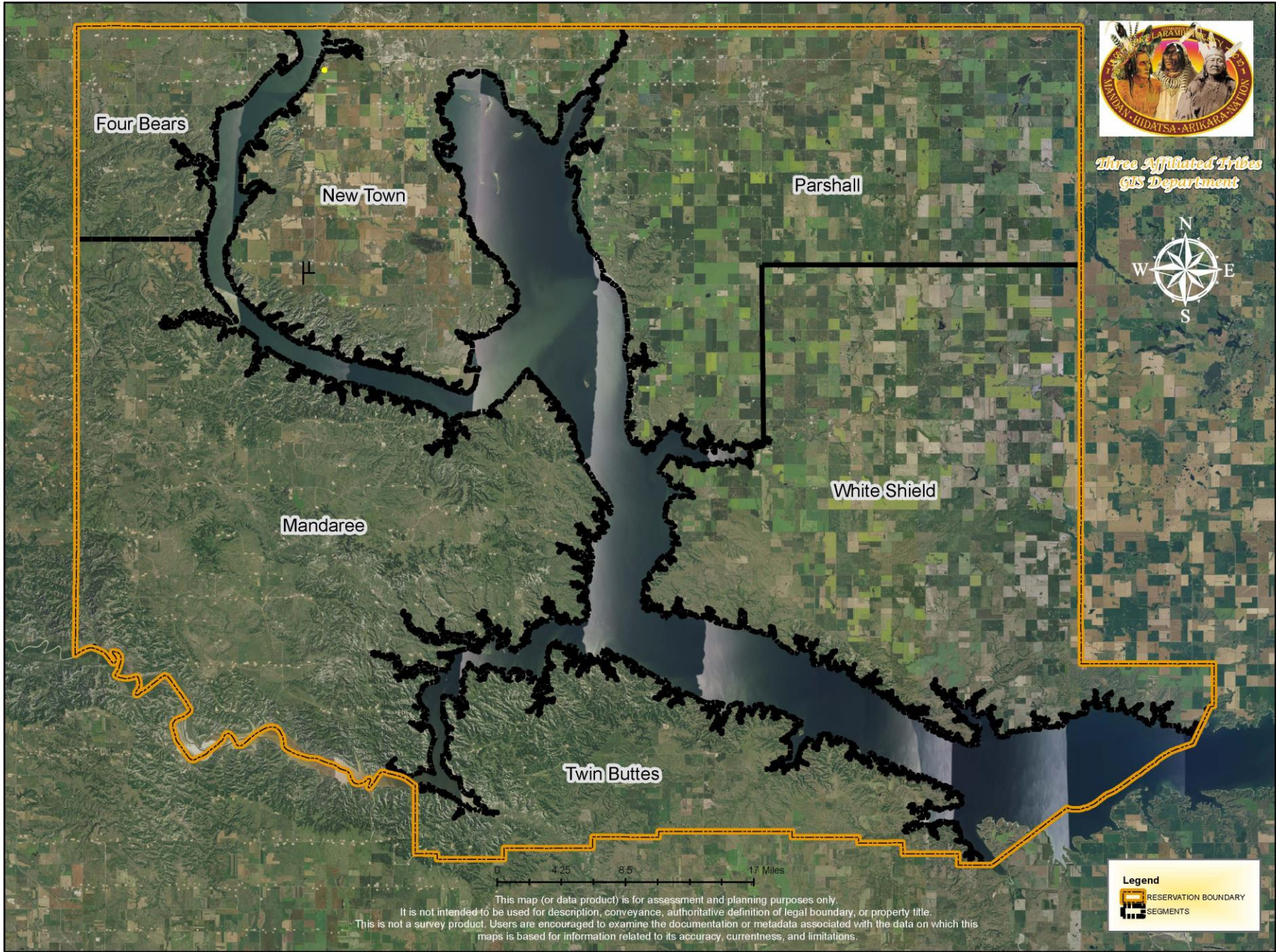
# Transportation GIS Review

Tanya Sand-Driver

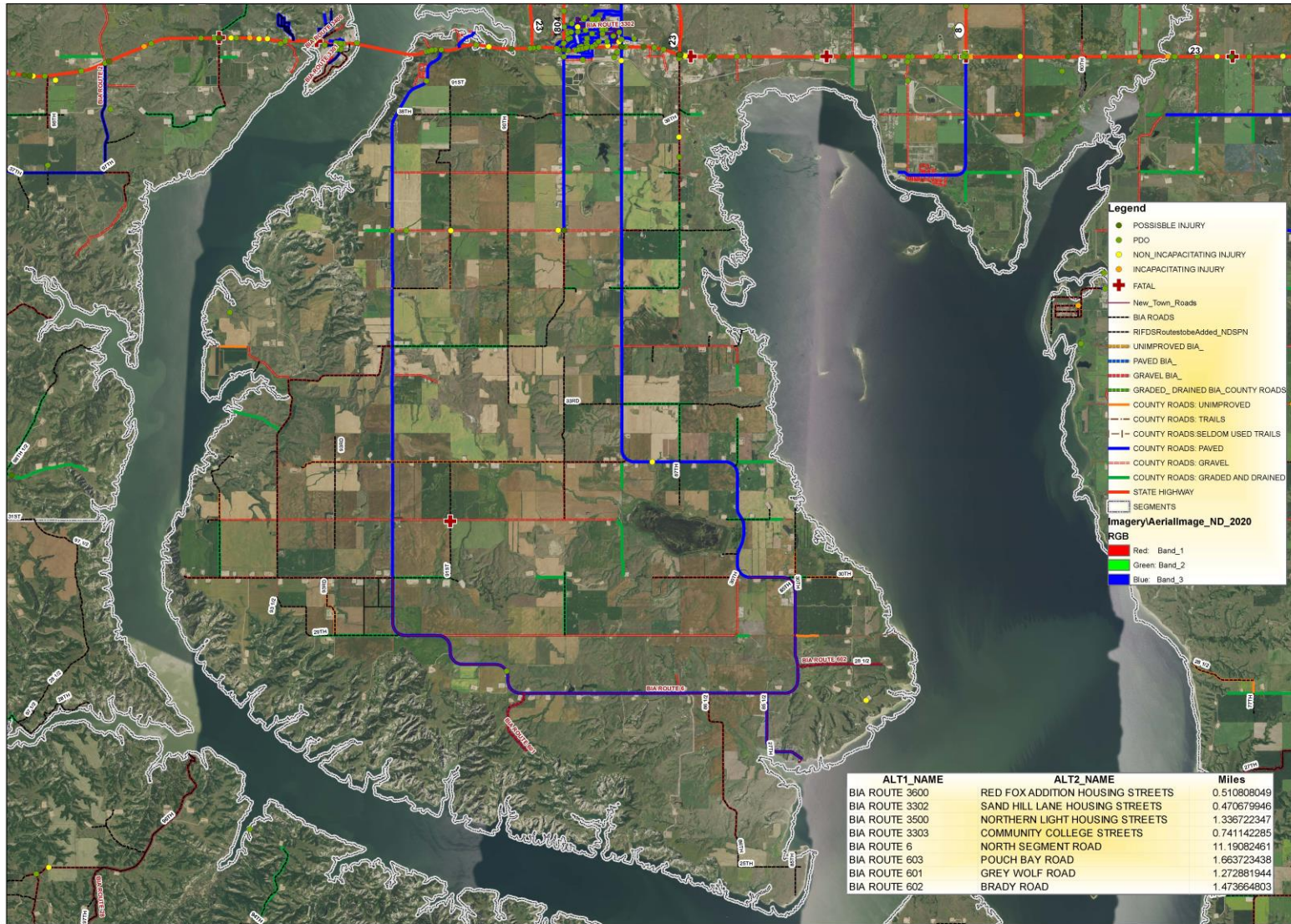
TAT GIS Director

# Three Affiliated Tribes

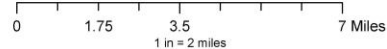
- Fort Berthold Indian Reservation consists of 988,000 acres
- Divided by six segments: North, South, East, Northeast, West, and Four Bears Segment.
- Also divided by six counties: Dunn, Mercer, Mountrail, McKenzie, Mclean, and Ward.



# North Segment-New Town



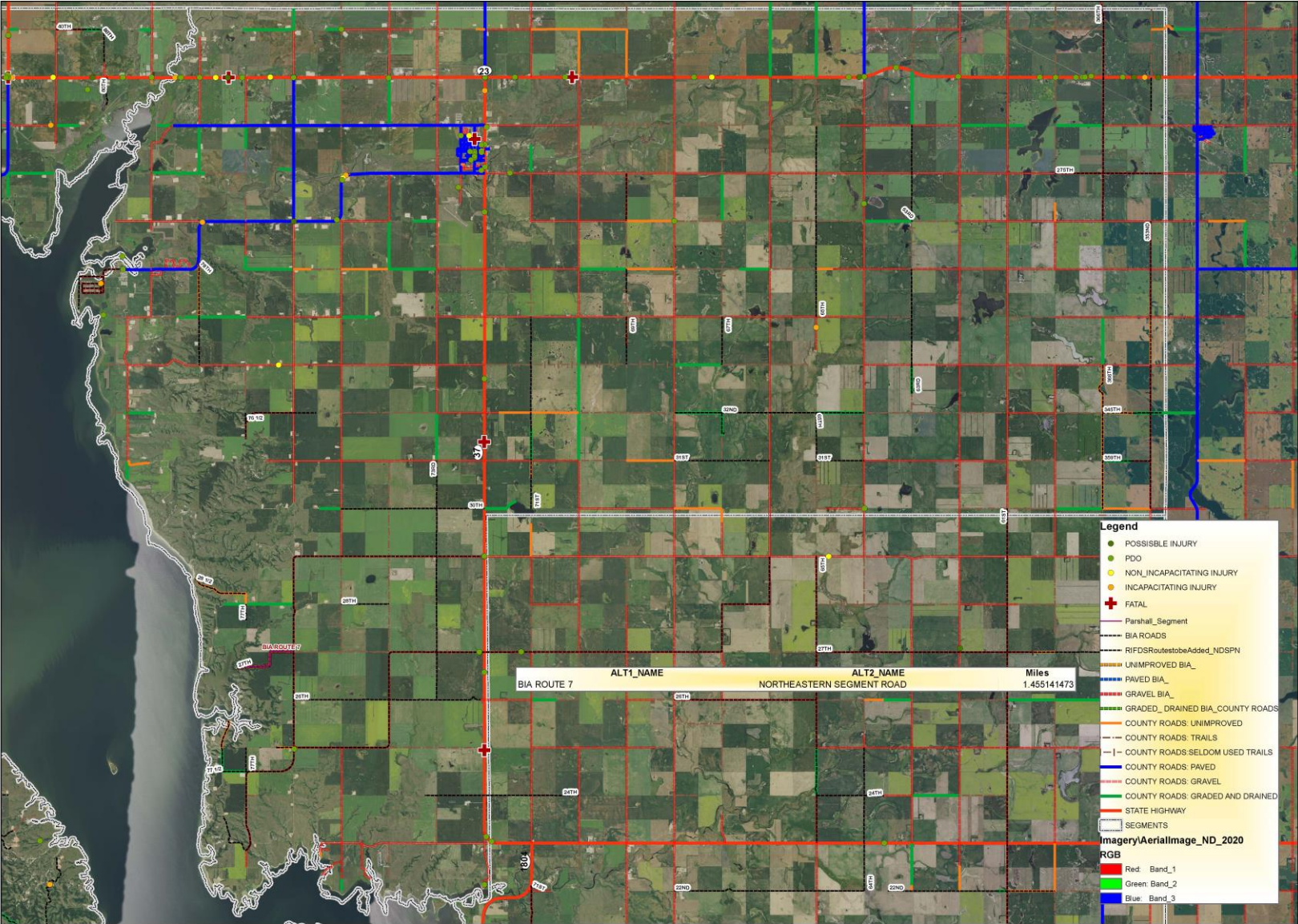
FORT BERTHOLD  
INDIAN RESERVATION  
NEW TOWN NORTH SEGMENT ROADS  
CRASH DATA



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It is not intended to be used for description, conveyance, authoritative definition of legal boundary, or property title.  
This is not a survey product. Users are encouraged to examine the documentation or metadata associated with the data on which this map is based for information related to its accuracy, currentness, and limitations.



# NorthEast Segment-Parshall



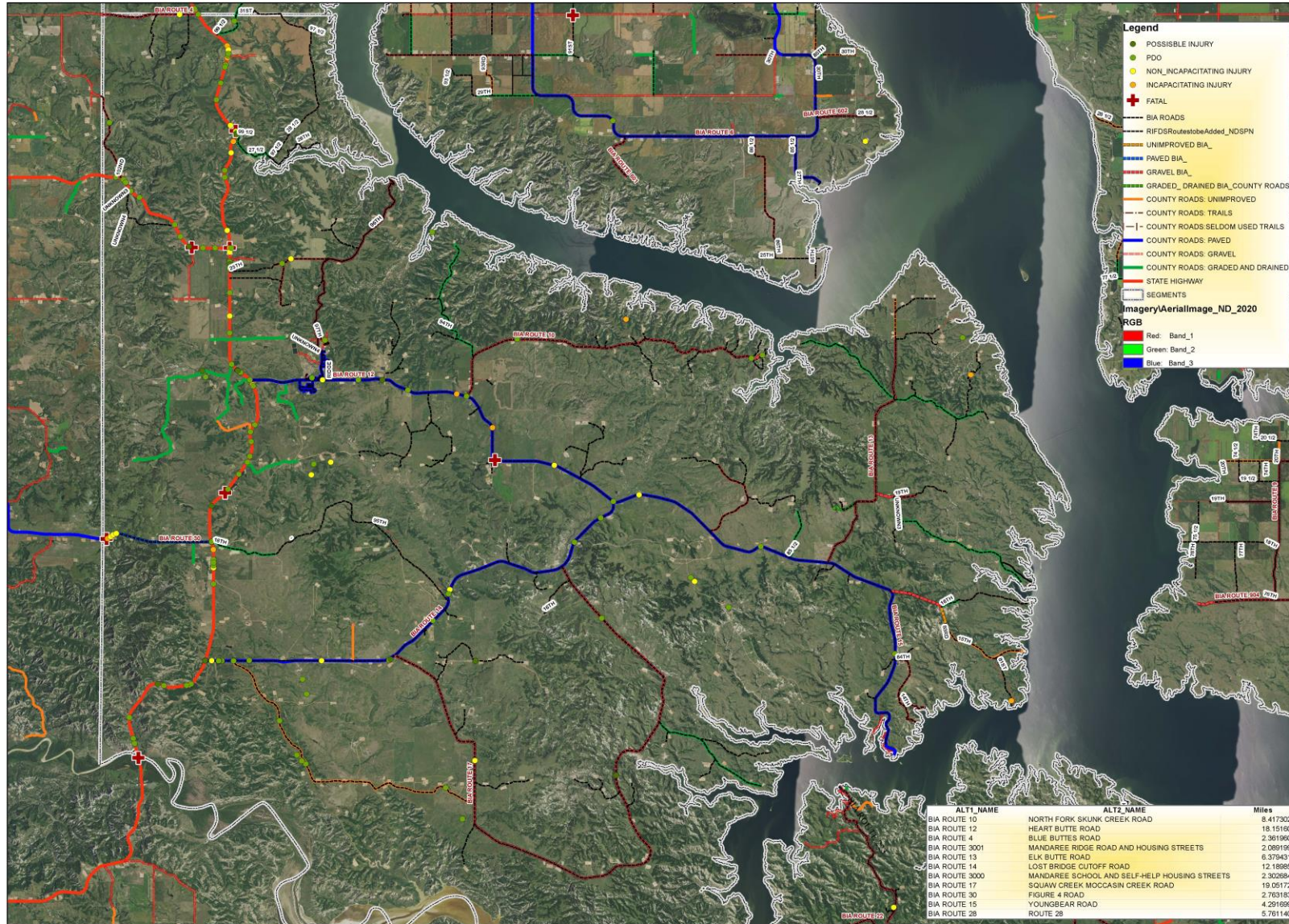
FORT BERTHOLD  
INDIAN RESERVATION  
PARSHALL NE SEGMENT ROADS  
CRASH DATA

0 2.25 4.5 9 Miles  
1 in = 2 miles

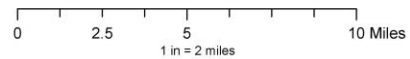
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# West Segment-Mandaree



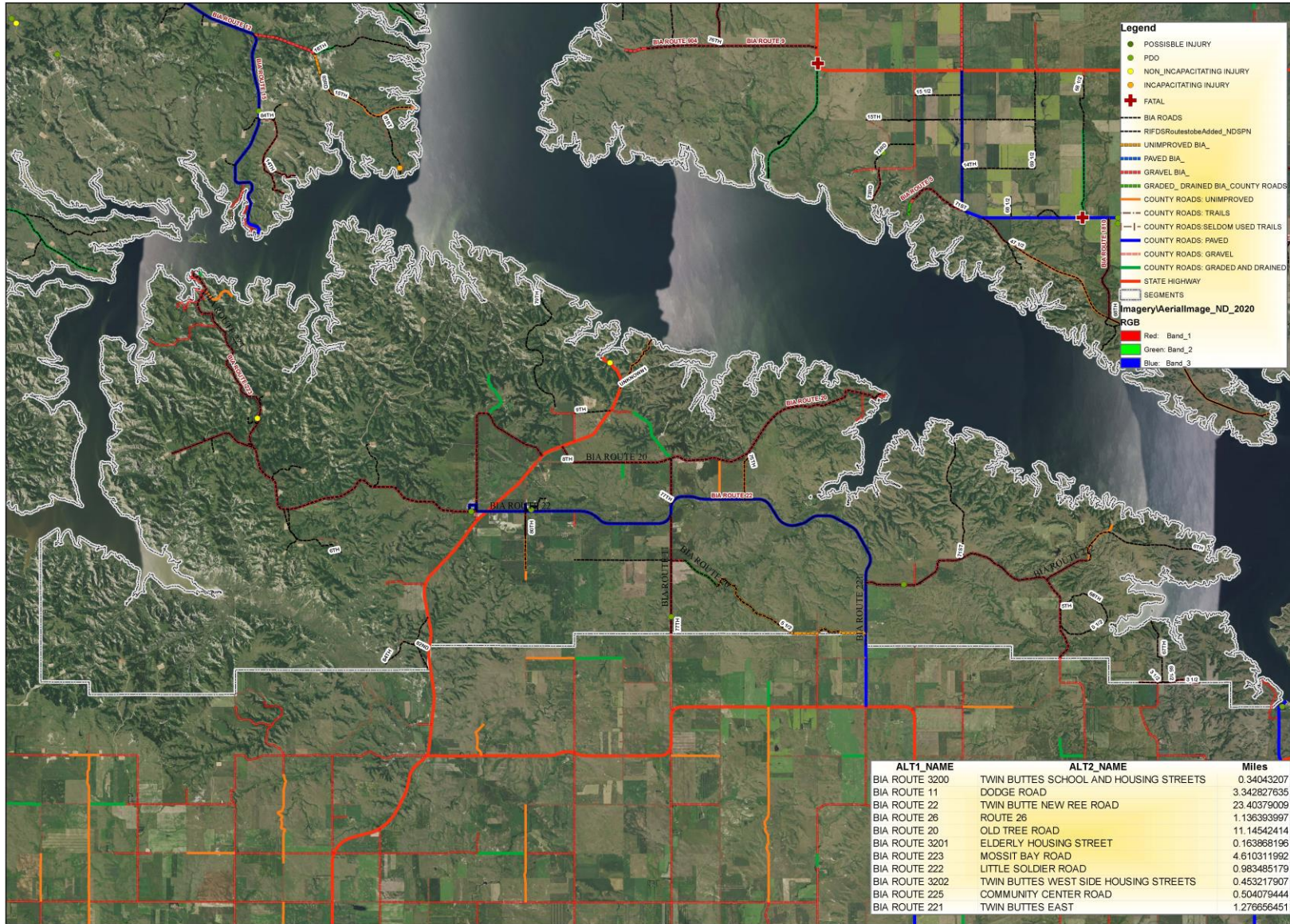
**FORT BERTHOLD  
INDIAN RESERVATION  
WEST SEGMENT ROADS  
CRASH DATA**



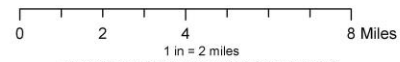
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# South Segment-Twin Buttes

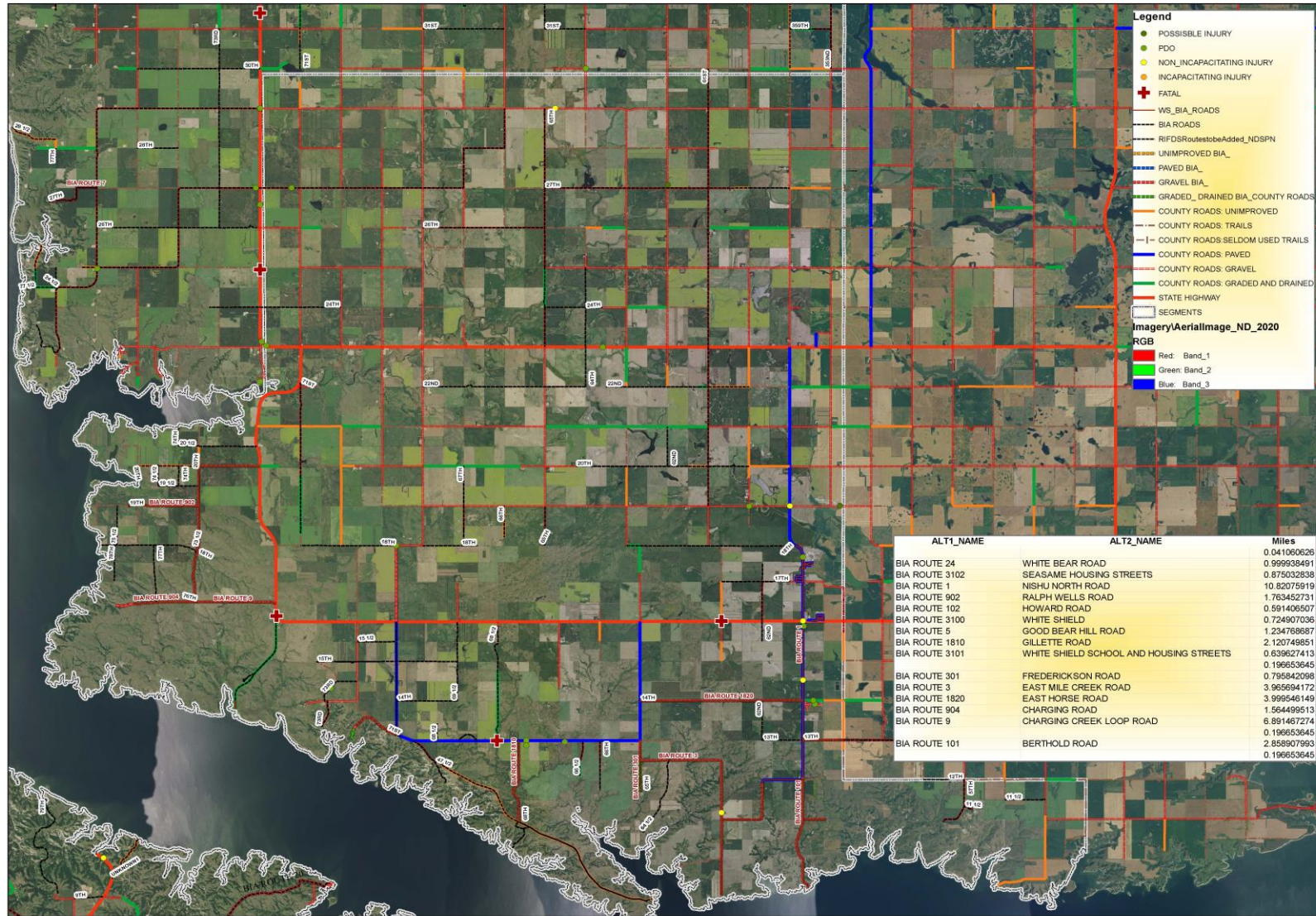


FORT BERTHOLD  
INDIAN RESERVATION  
SOUTH SEGMENT ROADS  
CRASH DATA



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# East Segment-White Shield



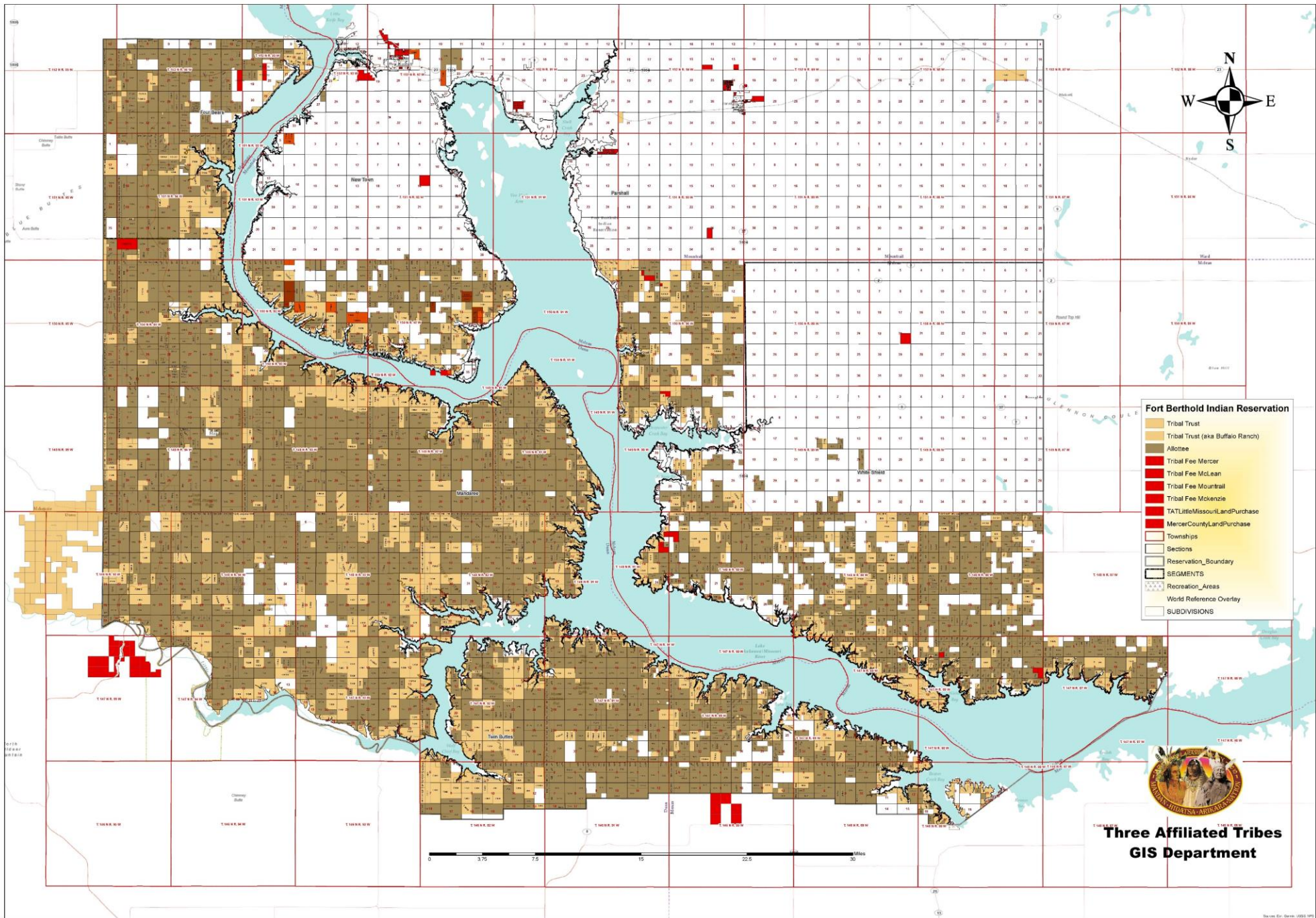
FORT BERTHOLD  
INDIAN RESERVATION  
EAST SEGMENT ROADS  
CRASH DATA

0 2.5 5 10 Miles  
1 in = 2 miles

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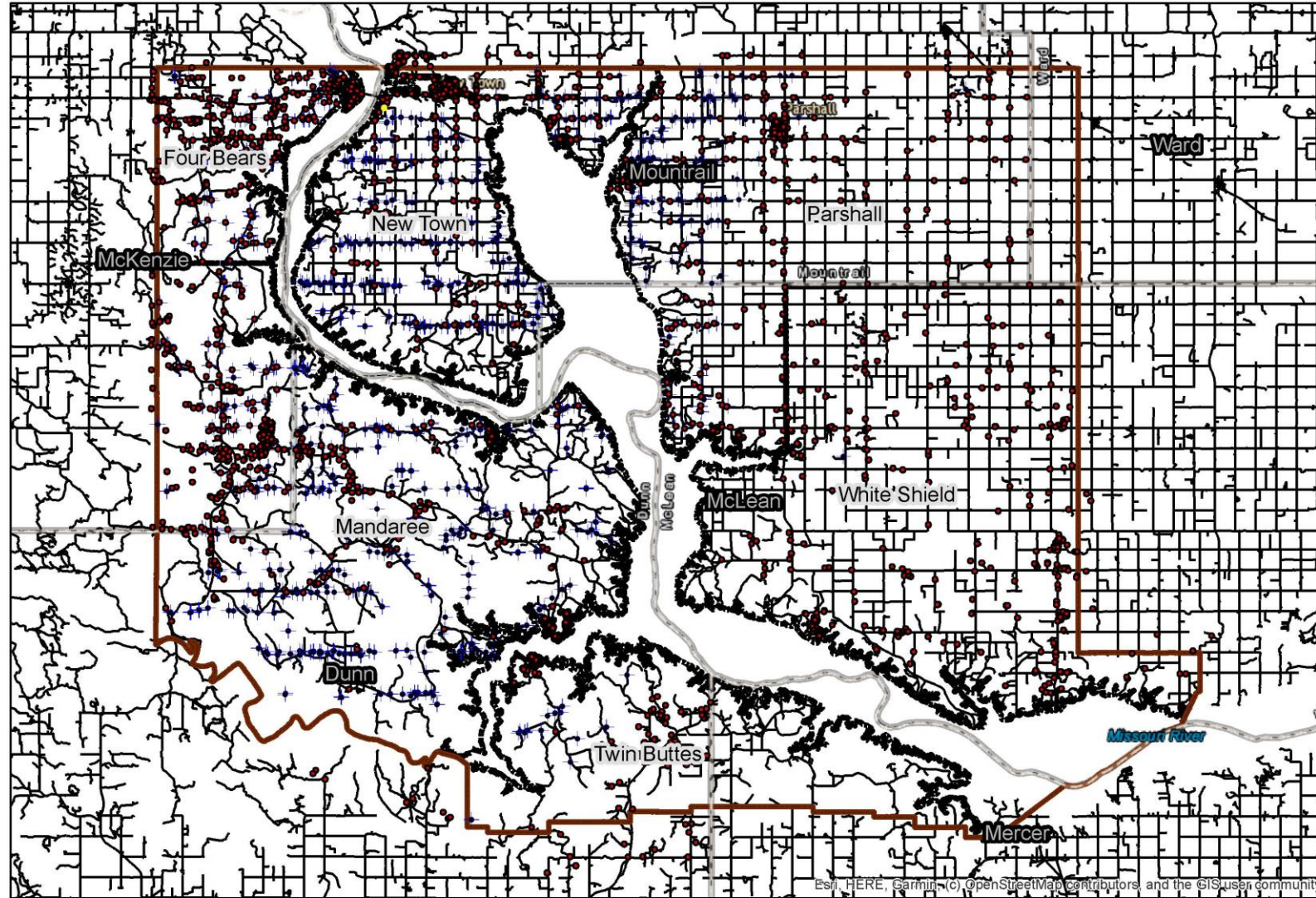
- Fort Berthold Indian Reservation**
- Tribal Trust
  - Tribal Trust (aka Buffalo Ranch)
  - Allottee
  - Tribal Fee Mercer
  - Tribal Fee McLean
  - Tribal Fee Mountrail
  - Tribal Fee Mckenzie
  - TAT Little Missouri Land Purchase
  - Mercer County Land Purchase
  - Townships
  - Sections
  - Reservation Boundary
  - SEGMENTS
  - Recreation Areas
  - World Reference Overlay
  - SUBDIVISIONS



**Three Affiliated Tribes  
GIS Department**



# Roads, 911 Points, Active Oil Wells



## 911 Points and Roads

This map application was prepared with geographic information system (GIS) data created by the Three Affiliated Tribes GIS, or other contributing agencies. These entities do not warrant or guarantee the accuracy or suitability of GIS data for any purpose. The GIS data within this application is intended to be used as a general index to spatial information and not intended for detailed, site-specific analysis or resolution of legal matters.



Legend	
<span style="color: red;">●</span>	FBR_911_A99
<span style="color: blue;">+</span>	FBR ACTIVE WELLS
<span style="border: 1px solid brown; display: inline-block; width: 10px; height: 10px;"></span>	RESERVATION BOUNDARY
<span style="border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span>	Census_Bureau_TIGER_Roads
<span style="border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span>	CEMETERIES
<span style="border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span>	COUNTY_BOUNDARY

# Demographic Segment Maps

- Available on the MHA Nation Website Department Directory under the GIS (Geographical Information Systems).
- <https://www.mhanation.com/geographic-information-systems>

# GIS -Transportation Responsibility

- Upkeep of an accurate inventory of roads for the Three Affiliated Tribes.
- Cross referencing shapefiles and data from BIA, six counties, NDDOT, TIGER census for data accuracy
  - FBIR Road Lengths differ from other entities
- Road surface and type
  - Gravel, Paved, Trail, etc.
  - Maintained by:Tribe or County

Researching Right of Way

Requesting Title Status Report from BIA

Road Drawings

Georeferencing

	Local Access		BIA		State		County		Municipal/ Tribal	
	# of Routes	Mileage	# of Routes	Mileage	# of Routes	Mileage	# of Routes	Mileage	# of Routes	Mileage
Twin Buttes	16	9.8	52	50.1	1	8.1	42	33.1		
Mandaree	81	85.1	57	76.8	2	24.7	56	75.5		
Four Bears	32	22.7	11	11.4	2	18.2	26	24.7		
New Town	10	2.8	14	13.7	6	15.5	163	162.7	81	8.7
Parshall	3	4.3	1	1.4	1	30.6	254	410.9	42	10
White Shield	4	1.2	47	54.2	1	41.5	220	313.5		
Totals	146	125.9	182	207.6	13	138.6	761	1020.4	123	18.7

Miles 1511.2  
Routes 1225

	White Shield		Parshall		New Town		Four Bears		Mandaree		Twin Buttes	
	# of Routes	Mileage										
Grade and Drain	22	25.1	42	34.8	13	6.3	3	3.4	9	12	3	2.2
Gravel	92	182.1	110	234.6	71	68.3	16	14.9	44	72.1	48	43.2
Paved	24	47.4	31	44.5	107	48.3	9	6.7	28	20.9	17	11.2
Trail	102	103.1	77	97.1	47	47.5	10	12.1	29	44.9	24	25.2
Unimproved	25	27.7	32	25.1	16	14.6	1	0.5	4	3.4	3	2.8
	265	385.4	292	436.1	254	185	39	37.6	114	153.3	95	84.6

Miles 1282 mileage discrepancy is due inconsistent data  
Routes 1059

- Road system and network is the foundation to many other GIS responsibilities to the Three Affiliated Tribes.
- Emergency Management
  - Ambulance, Law Enforcement, Fire;
- 911 Systems-Next Gen 911
  - 3 to 4 names for a road;
  - Emergency care delayed due to the question of fastest route
  - Counties use Burkle Addressing System; each county has a different Schema
- Homesites
  - Roads need to be named for an accurate 911 and delivery addressing with the county it is located in.
- Snow Routes
  - Maintenance of gravel and snow removal; enrolled members on a county maintained road.
- Elder Routes
- Bus Routes
- Access Roads to Well Sites
  - These roads not inventoried, Private Roads, ROW

# Database Management

- RIFDs System
- GRIT System
- TAT Standalone

# Ongoing Tasks

- Purchasing and upgrading Equipment for accuracy of field data
- Collaborating with TSRC (Tribal Safety Regulatory Commission)
- Collaborating with State Entities: NDDOT, 911
- Collaborating with County Offices for Roads, 911, Homesite, Land Ownership
- Drone Technology
- Quick Road survey, precise mapping, land surveys, inspections of bridges and road construction
- Training of staff working along with local engineers Brosz