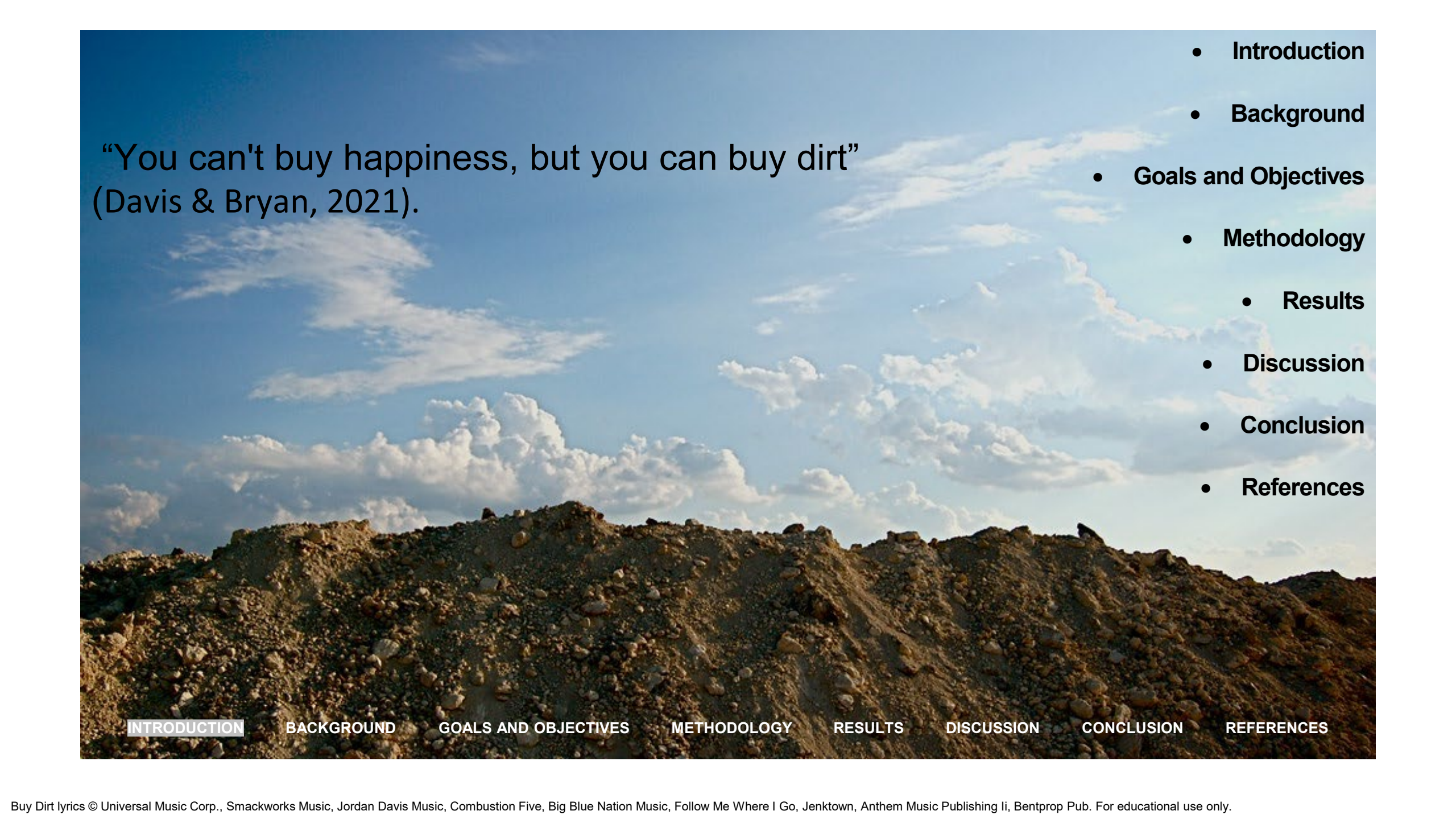




Colorado Front Range Protected Lands: Land Valuation Spatial Patterns
Maevlyn Stevens
Advisor Professor Travis Flohr and Support from Professor Fritz Kessler





“You can't buy happiness, but you can buy dirt”
(Davis & Bryan, 2021).

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REGIONAL PROGRAM

Western Division

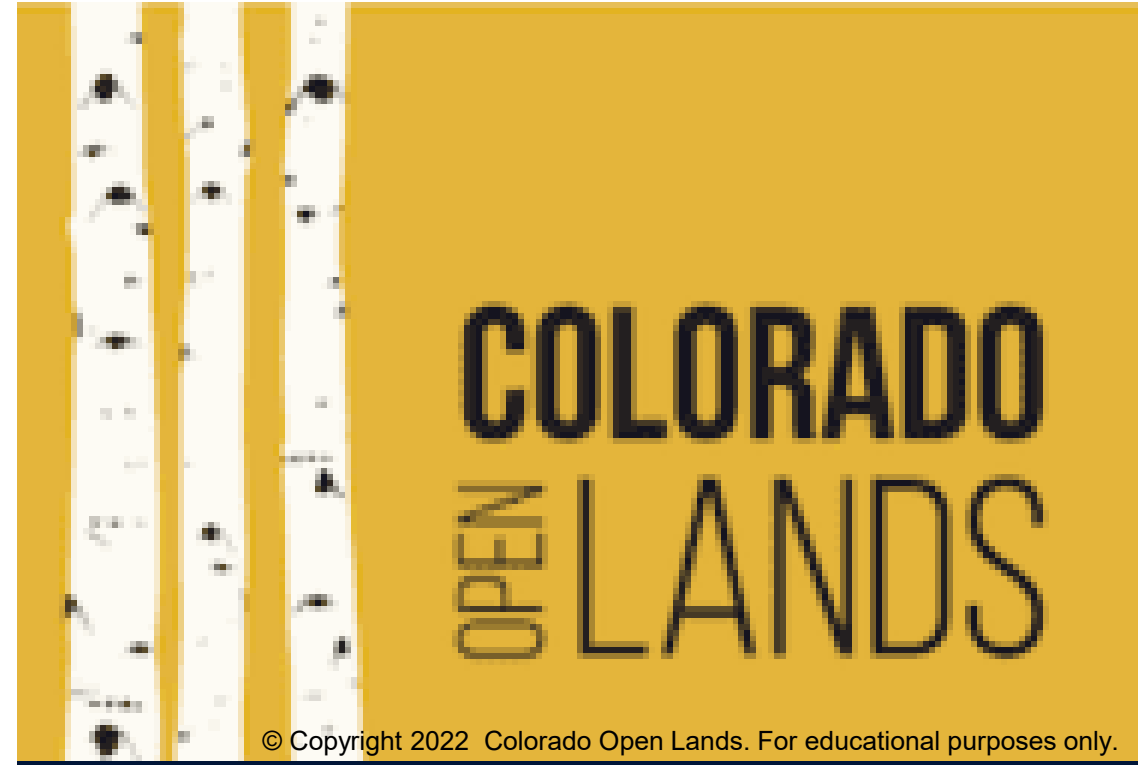
The Western Division delivers trainings and resources, convenes peer networks, provides financial support and connects personally with land trusts in the West.

Explore the Land

CONNECT > FIELD SERVICES > WEST

SHARE    

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Colorado Front Range
80% state population

Growth Rate:
2x US from 1990-2007
70% increase from 2007-2040

(Metropolitan Policy Program,
2016)



2019-21 Home Prices:

+30% Colorado
+100% Front Range

(Svaldi, 2022)



Municipal budget costs for open space returned a value on cost outlays while residential development often cost more than it returned.

In one case, on average open space cost \$0.29 versus \$1.13 for developed land in respective services required for each dollar spent.

(Fausold & Lilieholm, 1999).



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1. To what degree do conservation easements impact adjacent and nearby property values?

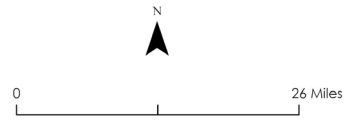
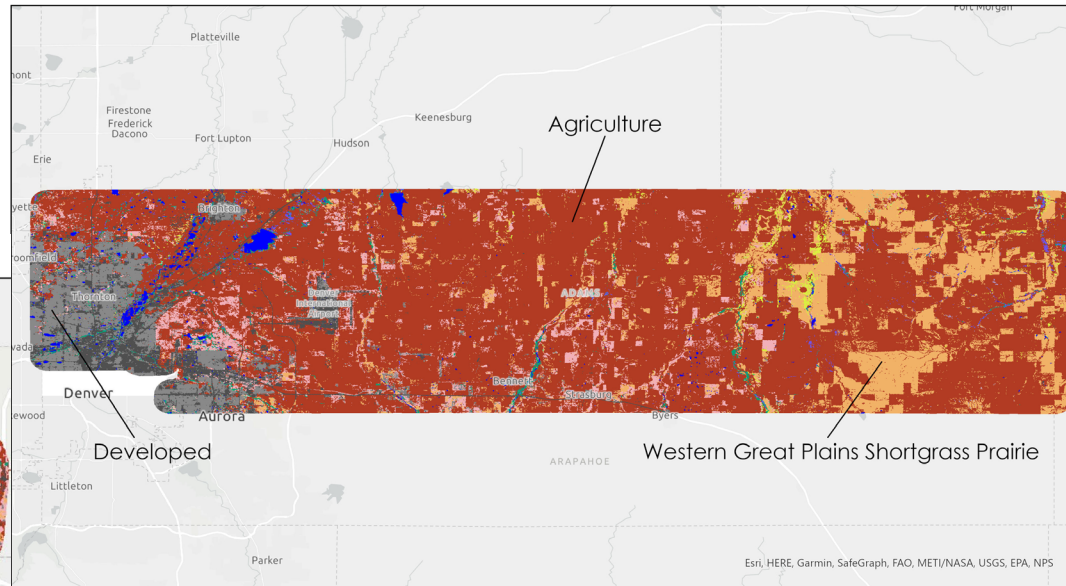


2. What impact do different conservation easement programs have on property values?



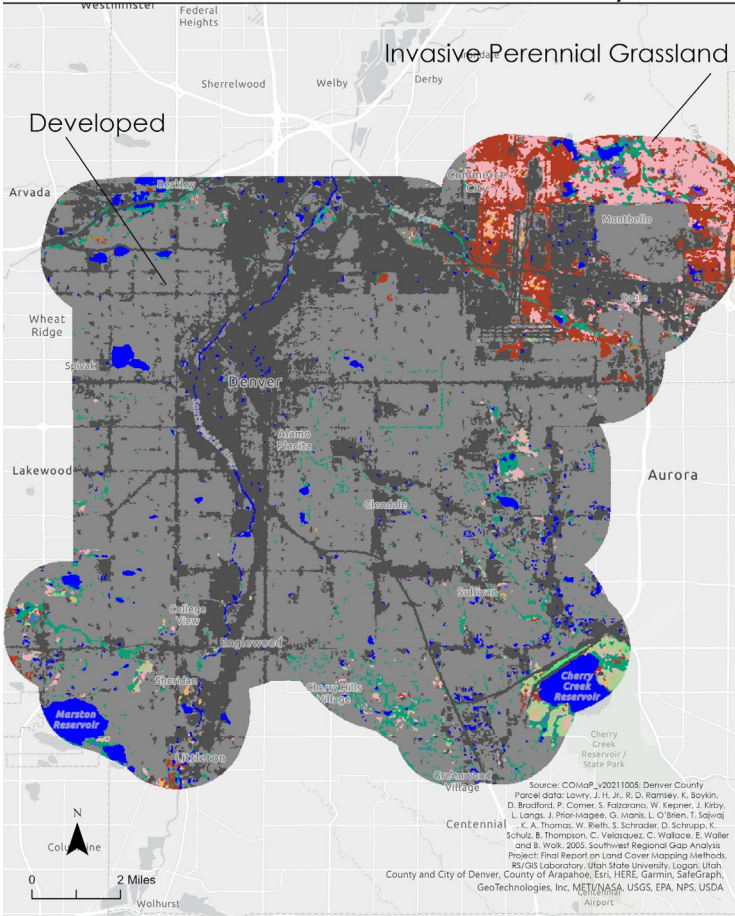
Variable	Numeric value	Data Source
Value per Acre	Property Value / Acres	County Assessor (Adams, Denver, Jefferson)
USFWS	Euclidean distance	Colorado Ownership, Management, and Protection (COMaP) project
USFS	Euclidean distance	COMaP
Tribal lands	Euclidean distance	COMaP
NPS	Euclidean distance	COMaP
NGO & Land Trust	Euclidean distance	COMaP
Federal	Euclidean distance	COMaP
State	Euclidean distance	COMaP
Private Conservation	Euclidean distance	COMaP
BLM	Euclidean distance	COMaP
Local	Euclidean distance	COMaP
Private	Euclidean distance	COMaP

Landcover Adams County



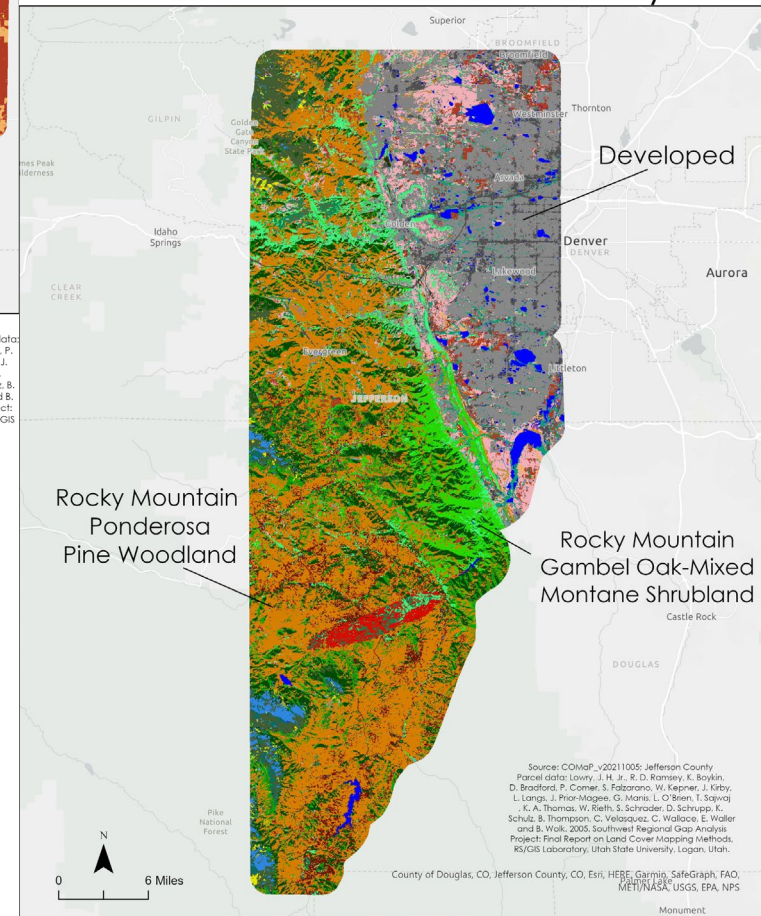
Source: COMaP_v20211005: Adams County Parcel data; Lowry, J. H., Jr., R. D. Ramsey, K. Boykin, D. Bradford, P. Comer, S. Fabrazano, W. Kepner, J. Kirby, L. Long, J. Prior-Magee, G. Manis, L. O'Brien, T. Sajwaj, K. A. Thomas, W. Riehl, S. Schrader, D. Schrupp, K. Schulz, B. Thompson, C. Velasquez, C. Wallace, E. Waller and B. Walk, 2005. Southwest Regional Gap Analysis Project: Final Report on Land Cover Mapping Methods, RS/GIS Laboratory, Utah State University, Logan, Utah.

Landcover Denver County



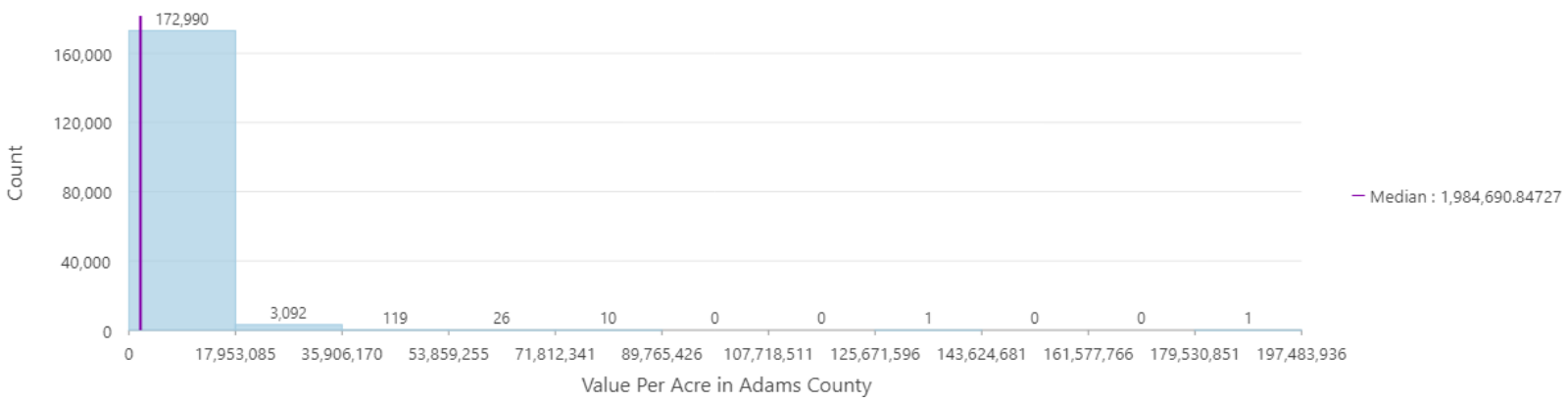
Source: COMaP_v20211005: Denver County Parcel data; Lowry, J. H., Jr., R. D. Ramsey, K. Boykin, D. Bradford, P. Comer, S. Fabrazano, W. Kepner, J. Kirby, L. Long, J. Prior-Magee, G. Manis, L. O'Brien, T. Sajwaj, K. A. Thomas, W. Riehl, S. Schrader, D. Schrupp, K. Schulz, B. Thompson, C. Velasquez, C. Wallace, E. Waller and B. Walk, 2005. Southwest Regional Gap Analysis Project: Final Report on Land Cover Mapping Methods, RS/GIS Laboratory, Utah State University, Logan, Utah; County of Arapahoe, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, EPA, USDA, USFWS, NPS.

Landcover Jefferson County

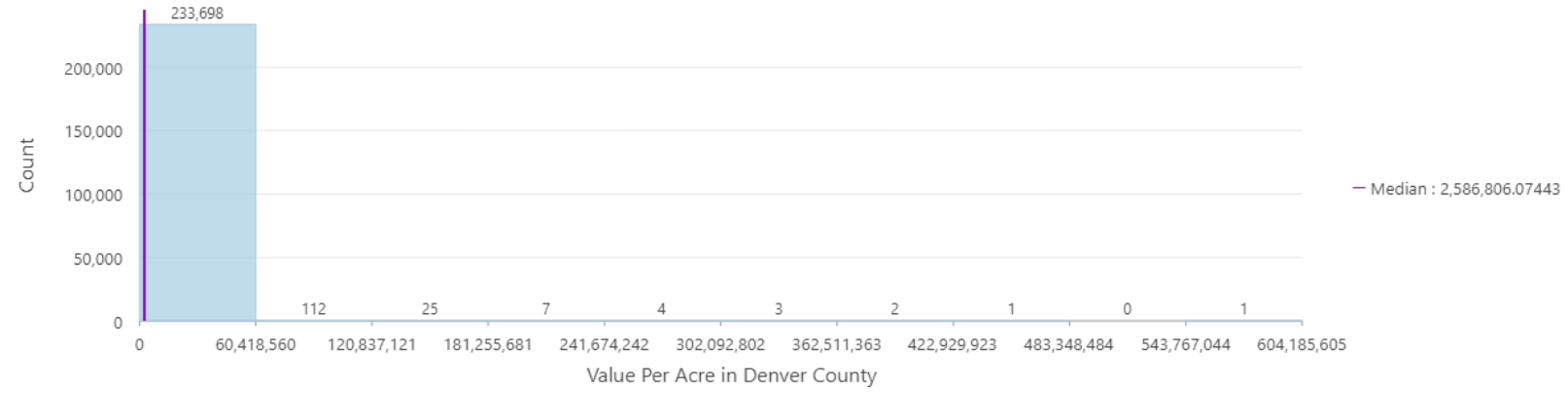


Source: COMaP_v20211005: Jefferson County Parcel data; Lowry, J. H., Jr., R. D. Ramsey, K. Boykin, D. Bradford, P. Comer, S. Fabrazano, W. Kepner, J. Kirby, L. Long, J. Prior-Magee, G. Manis, L. O'Brien, T. Sajwaj, K. A. Thomas, W. Riehl, S. Schrader, D. Schrupp, K. Schulz, B. Thompson, C. Velasquez, C. Wallace, E. Waller and B. Walk, 2005. Southwest Regional Gap Analysis Project: Final Report on Land Cover Mapping Methods, RS/GIS Laboratory, Utah State University, Logan, Utah; County of Douglas, CO, Jefferson County, CO, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, USFWS, NPS.

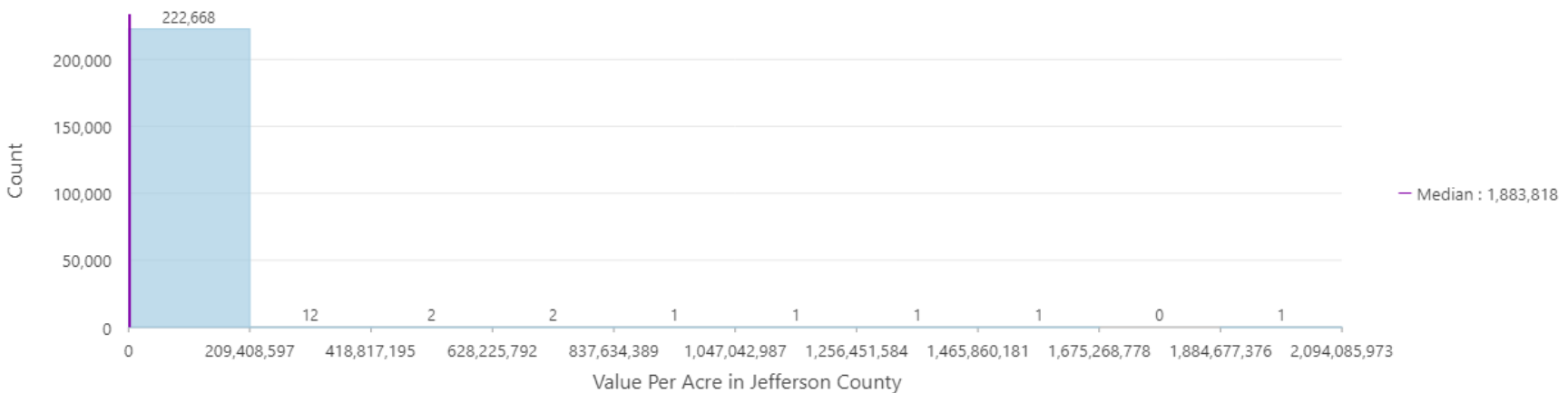
Distribution of Median Property Value Per Acre



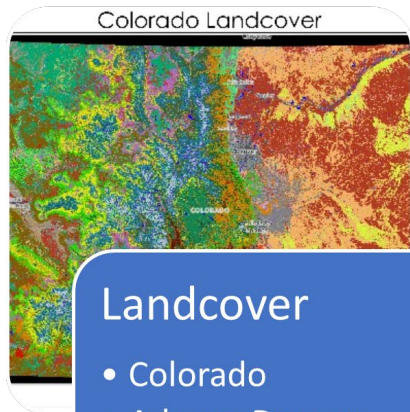
Distribution of Median Property Value Per Acre



Distribution of Median Property Value Per Acre

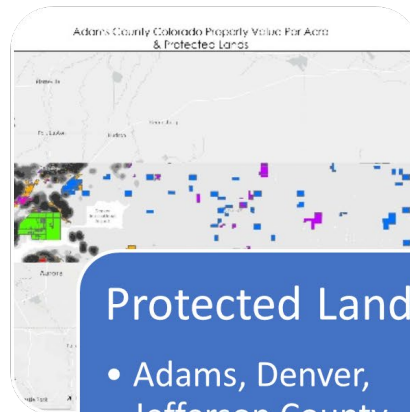


(Adams, Denver, & Jefferson Counties, 2023)



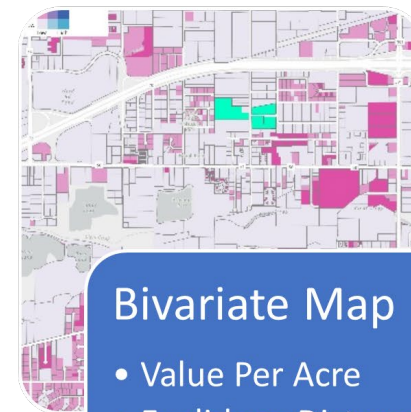
Landcover

- Colorado
- Adams, Denver, Jefferson County



Protected Lands

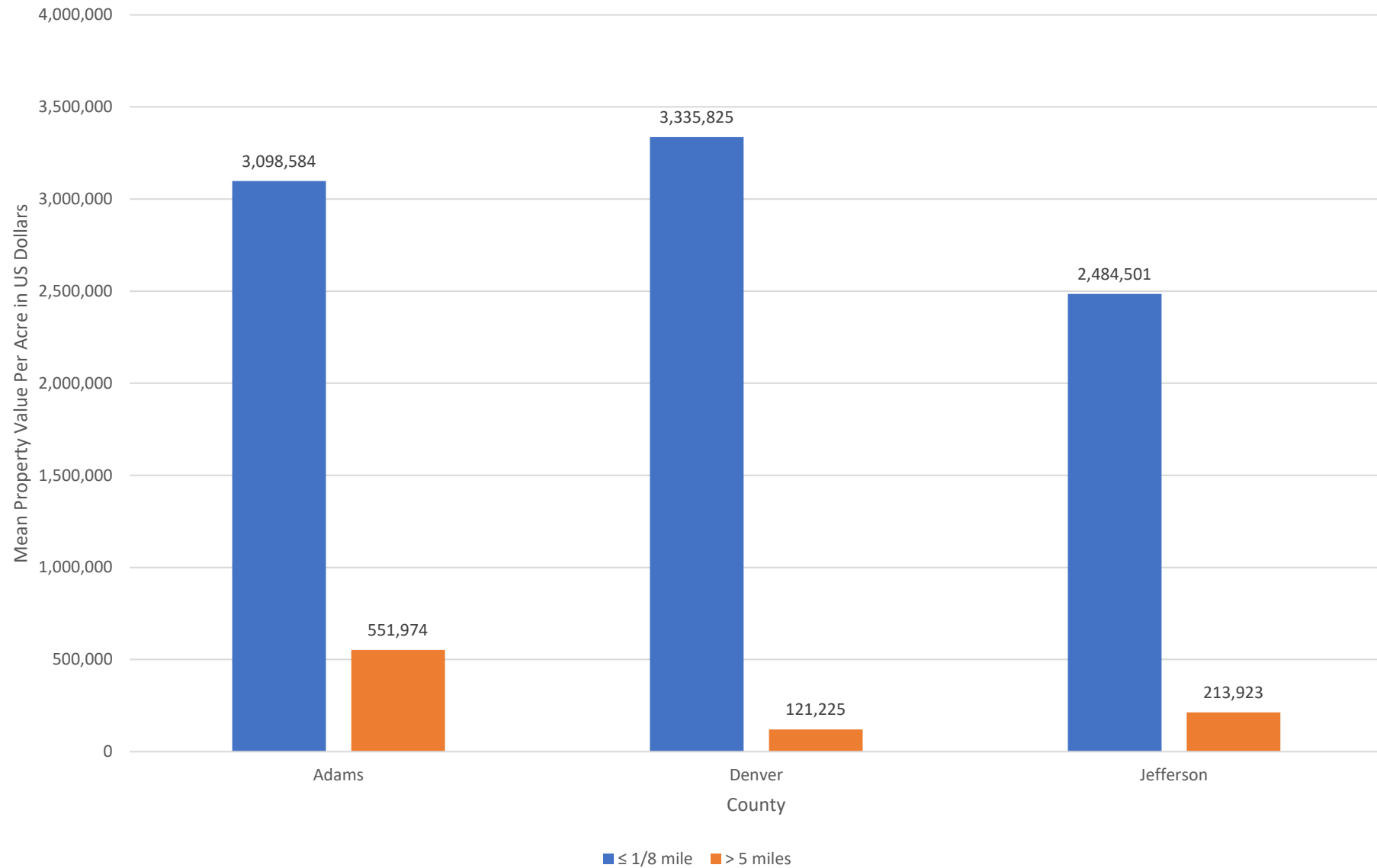
- Adams, Denver, Jefferson County
- Social Justice and Social Vulnerability Index Analysis



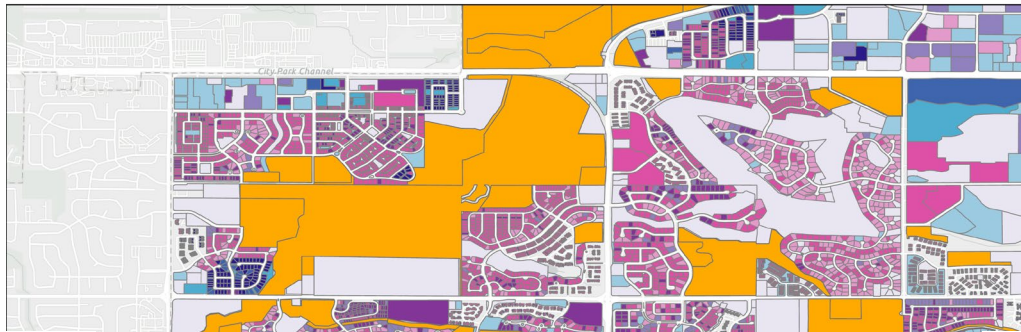
Bivariate Map

- Value Per Acre
- Euclidean Distance to Protected Lands

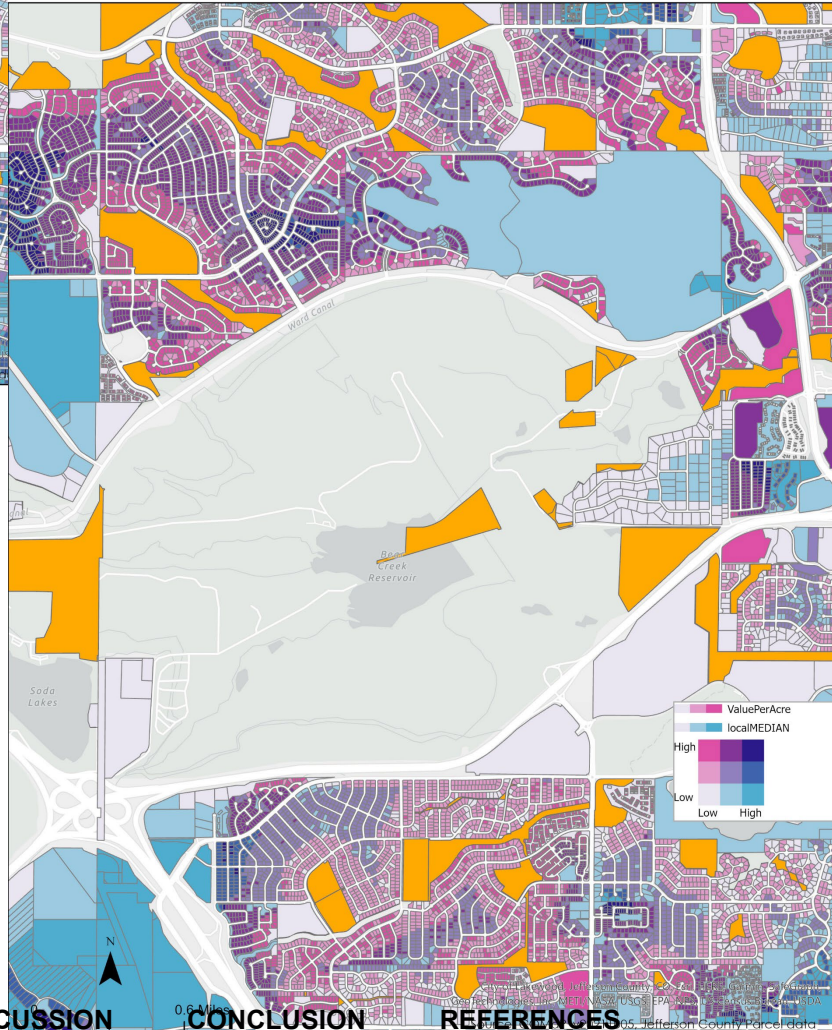
Mean Value Per Acre by Distance from Local Lands



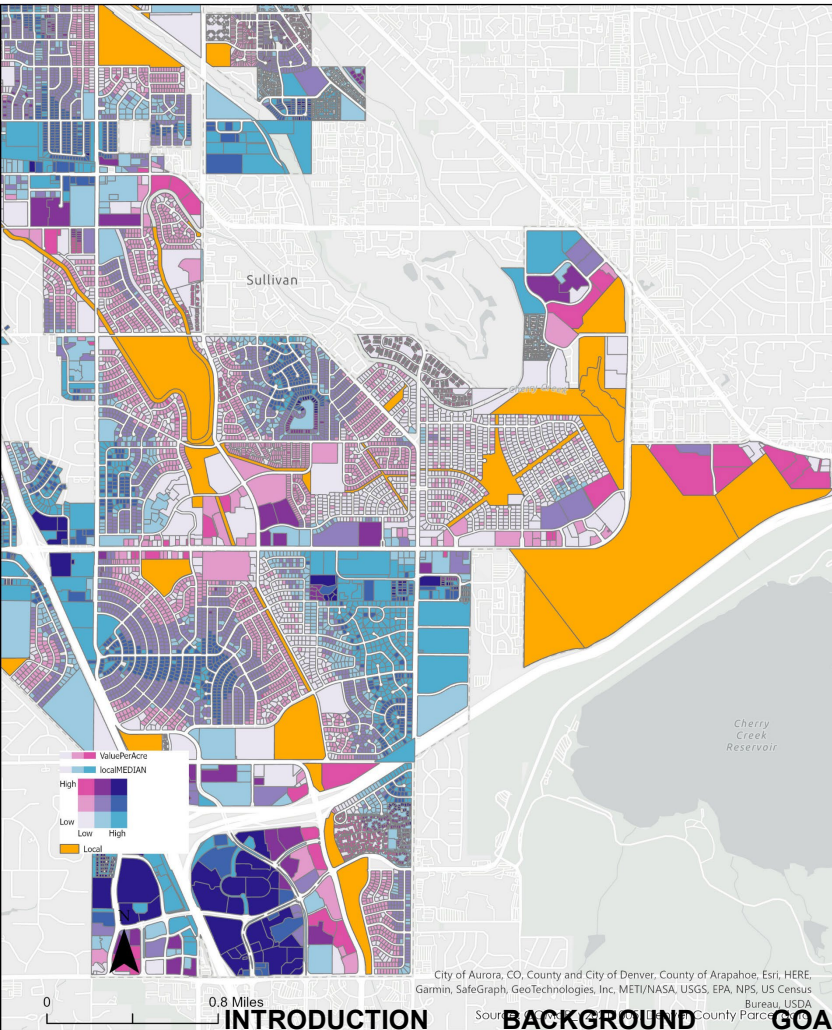
(Adams, Denver, & Jefferson Counties, 2023; Colorado Natural Heritage Program, 2021)



Bivariate Representation of Property Value per Acre and Euclidean Distance to Local Protected Lands



Bivariate Representation of Property Value per Acre and Euclidean Distance to Local Protected Lands



City of Aurora, CO, County and City of Denver, County of Arapahoe, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

City of Westminster, City and County of Bloomfield, County and City of Denver, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

City of Aurora, CO, County and City of Denver, County of Arapahoe, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

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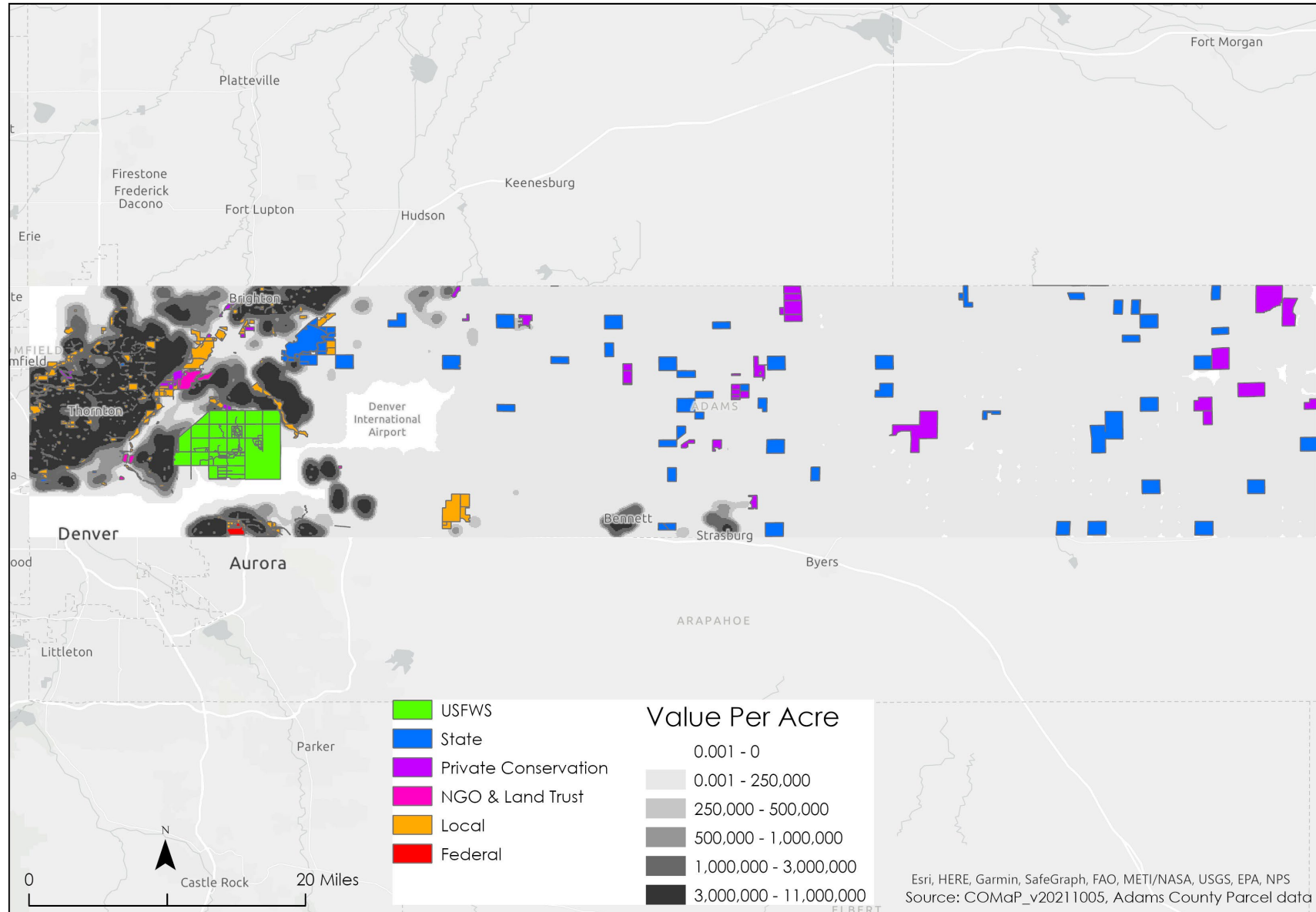
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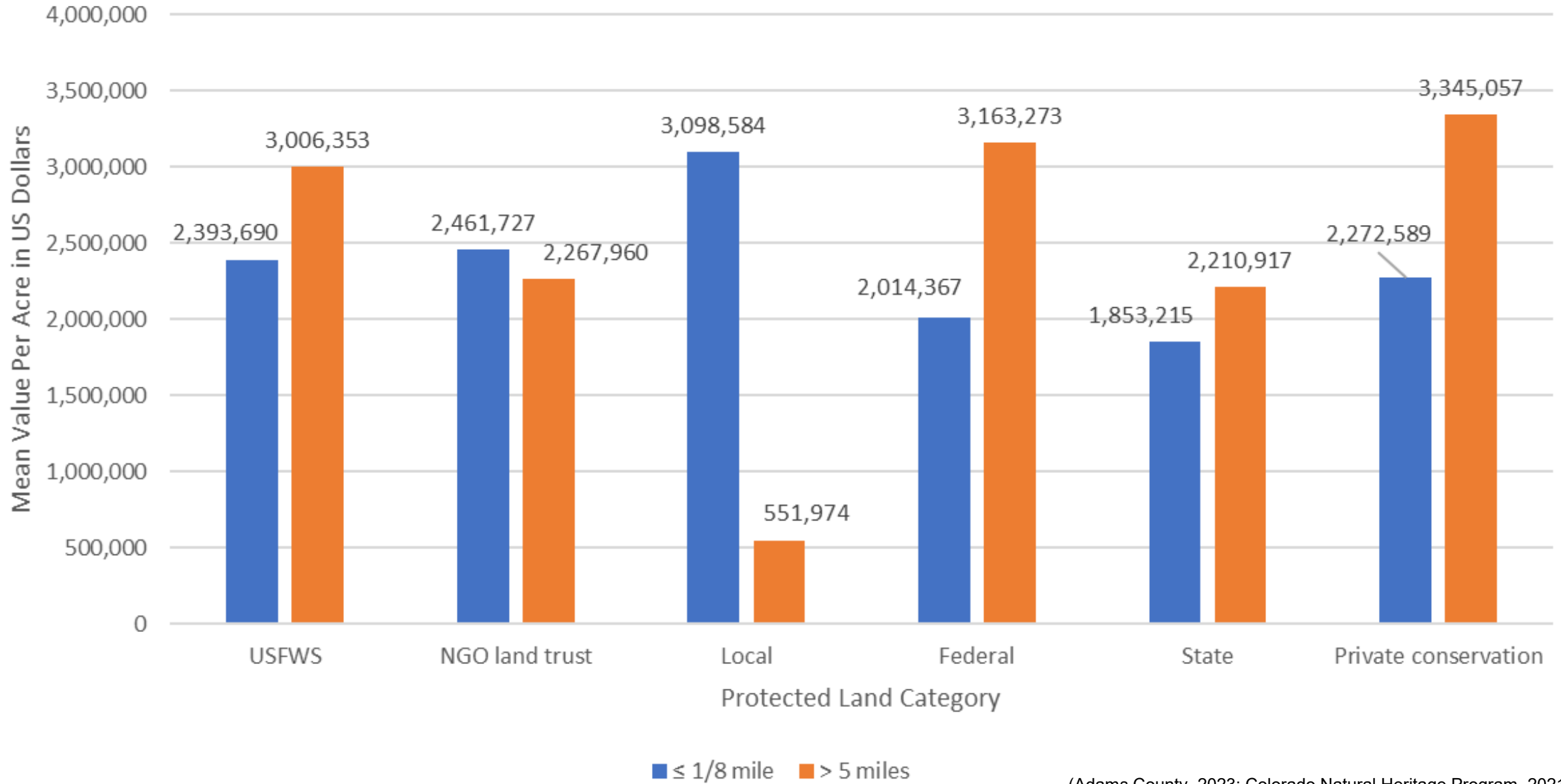
CONCLUSION

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Adams County Colorado Property Value Per Acre & Protected Lands

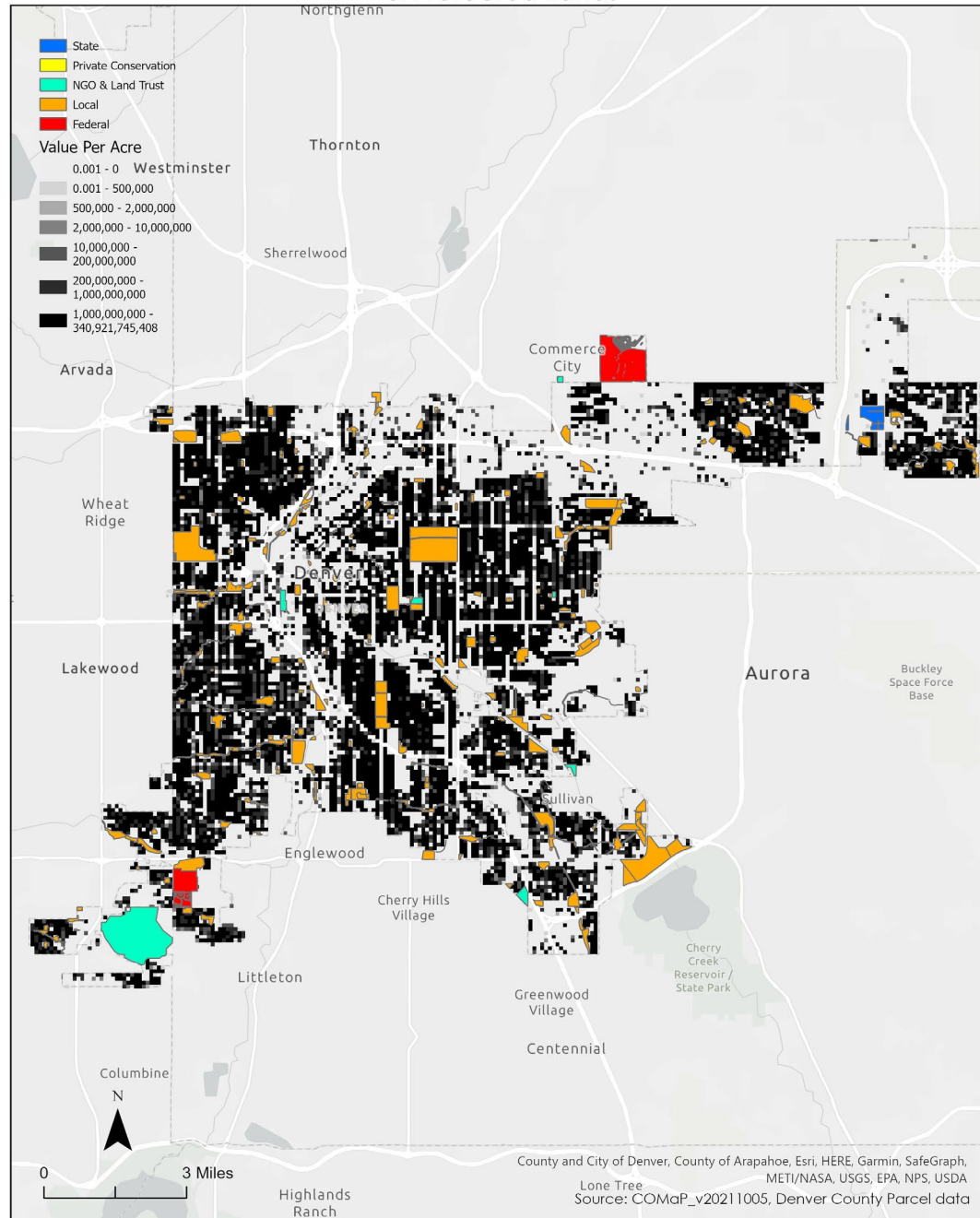


Mean Value Per Acre by Distance

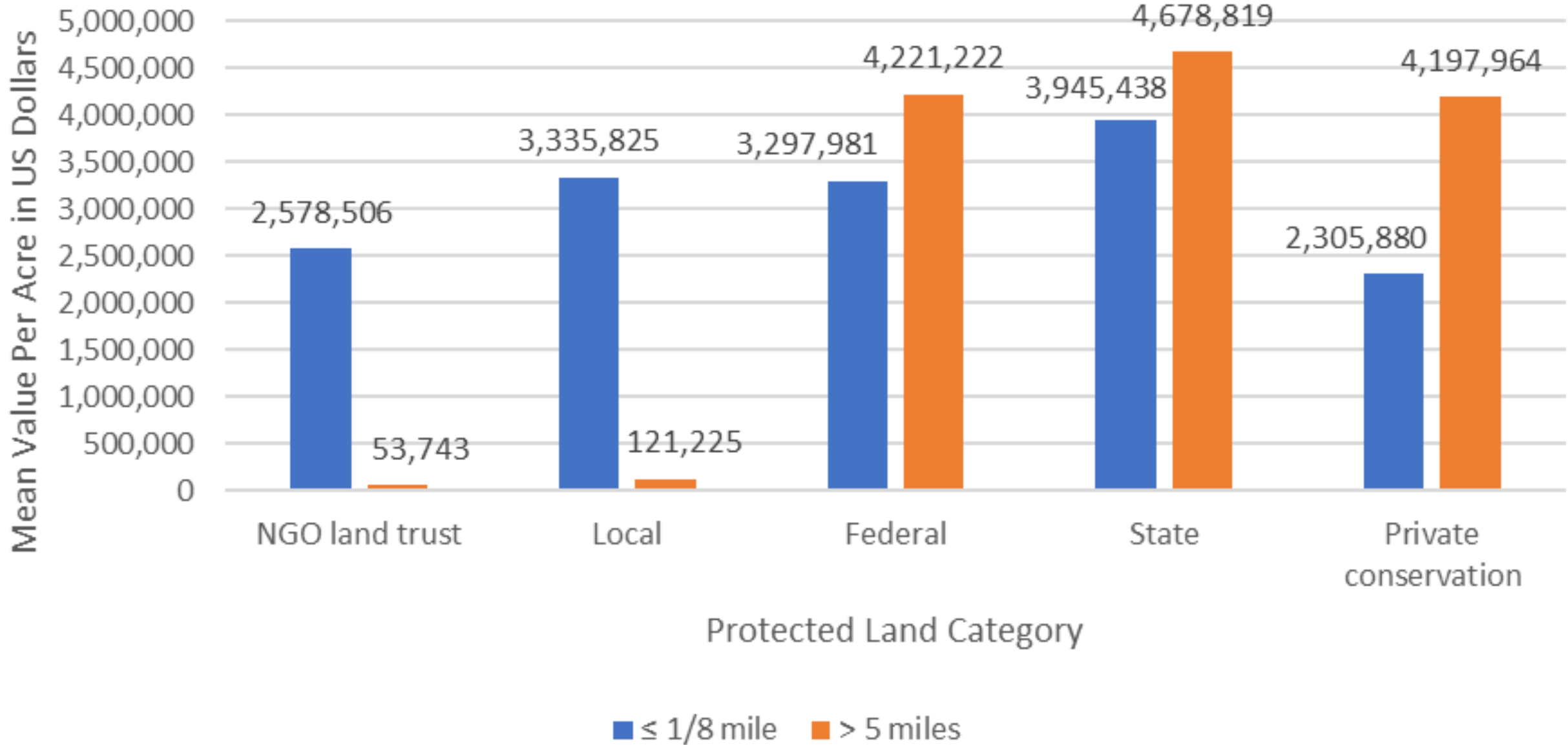


(Adams County, 2023; Colorado Natural Heritage Program, 2021)

Denver County Property Value Per Acre & Protected Lands

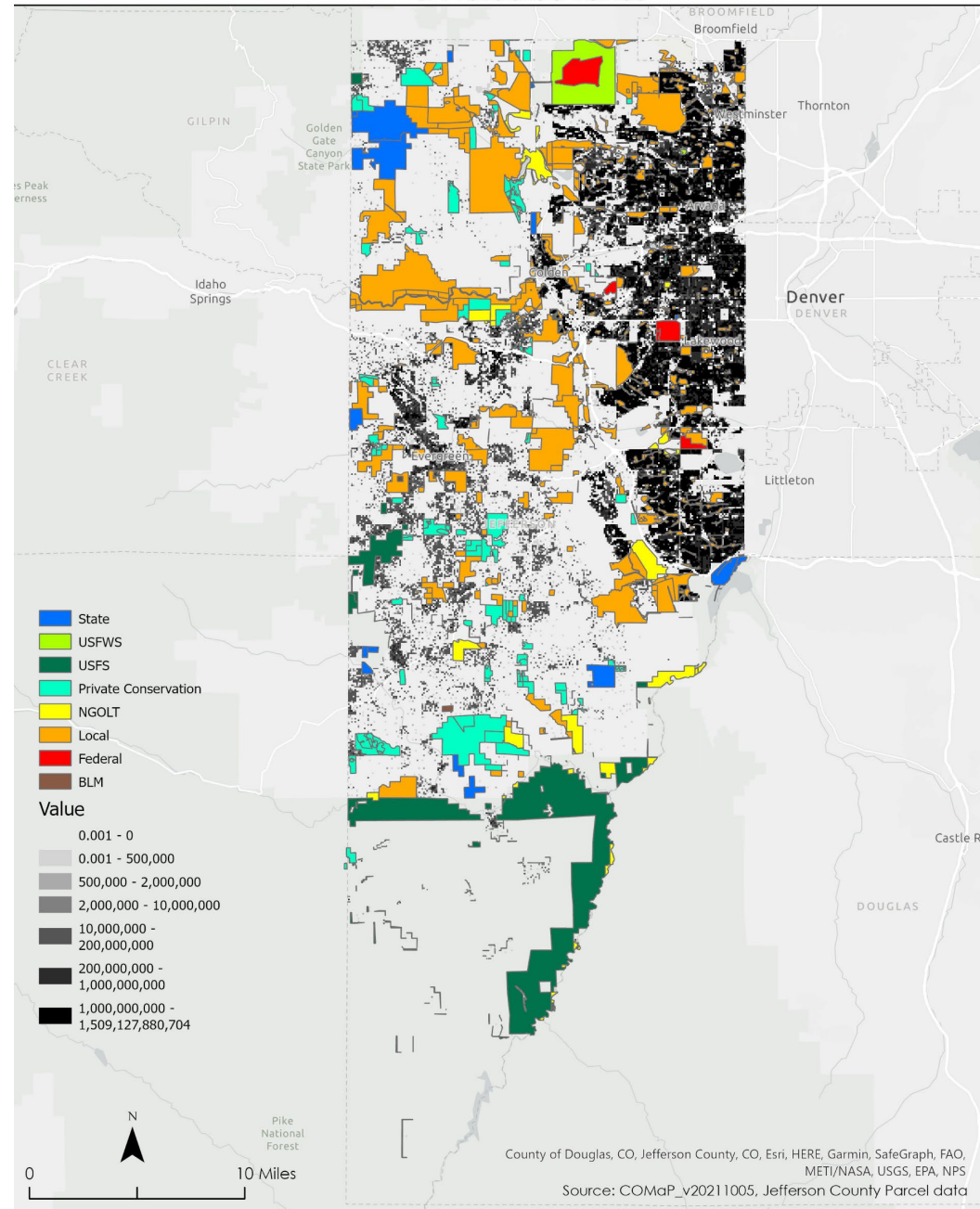


Mean Value Per Acre by Distance

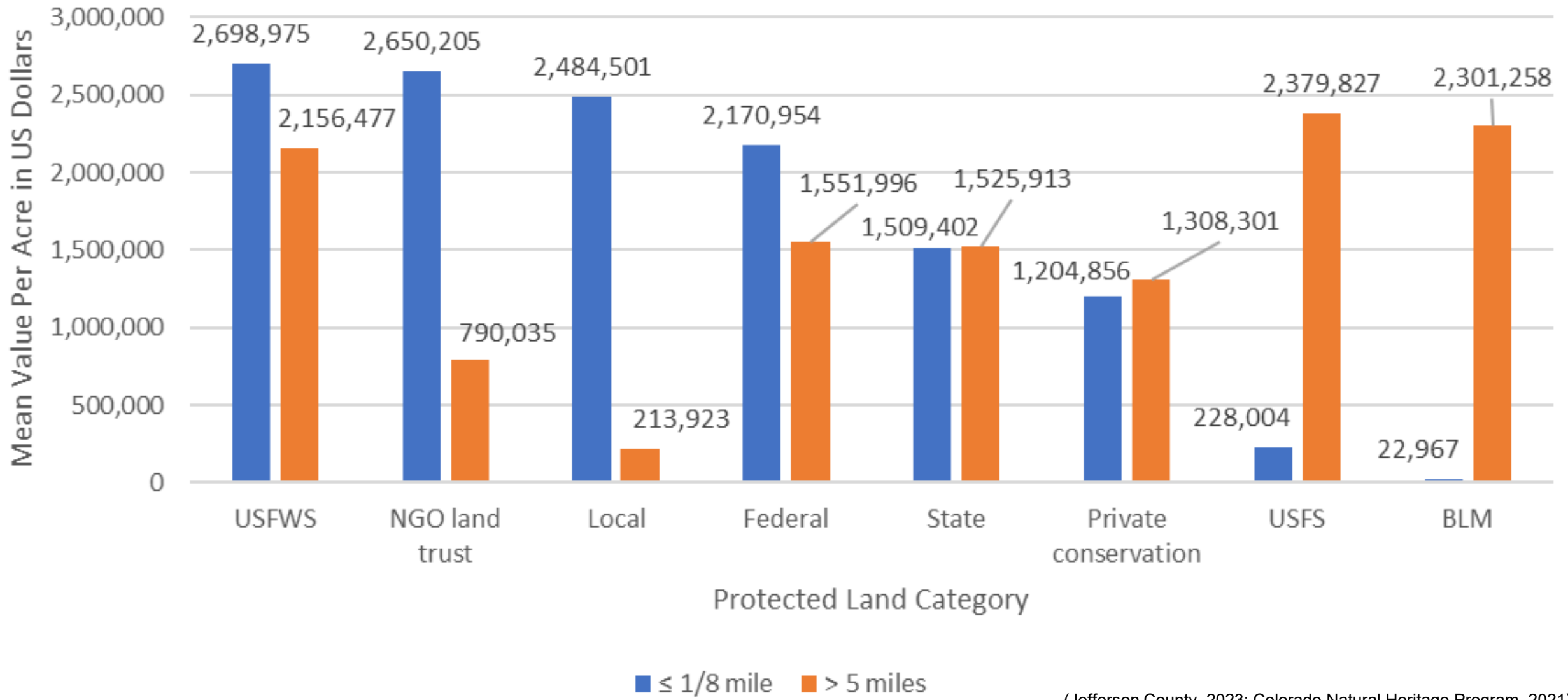


(Denver County, 2023; Colorado Natural Heritage Program, 2021)

Jefferson County Property Value Per Acre & Protected Lands



Mean Value Per Acre by Distance

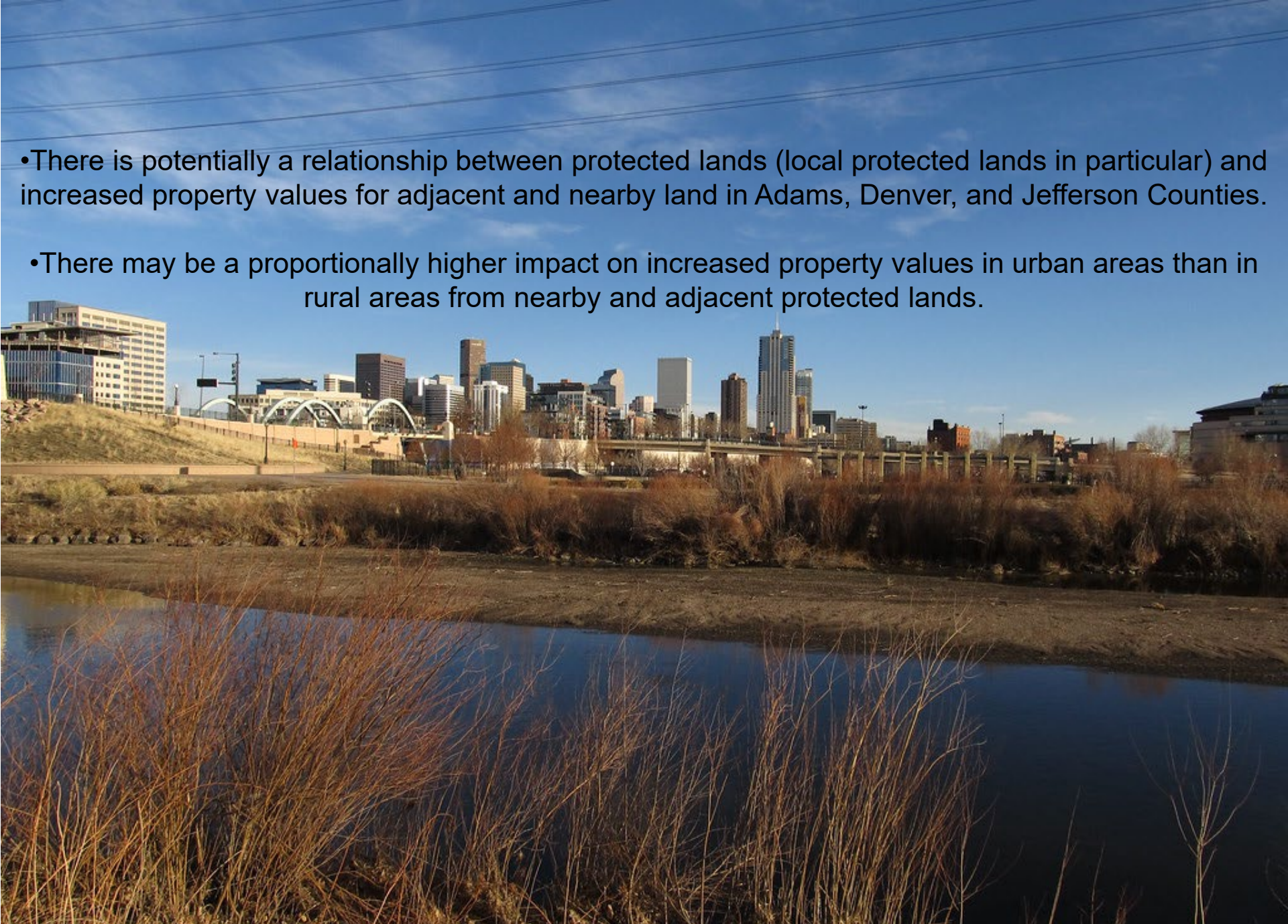


(Jefferson County, 2023; Colorado Natural Heritage Program, 2021)

Only local protected lands demonstrate a potentially strong influence on adjacent property values in all three counties. This result is also concerning because only 6% of the local protected lands in Colorado are protected via more permanent conservation easement, fee title, or deed restrictions. City and county lands can be repurposed or even developed. (Colorado Natural Heritage Program, 2021)



- There is potentially a relationship between protected lands (local protected lands in particular) and increased property values for adjacent and nearby land in Adams, Denver, and Jefferson Counties.
- There may be a proportionally higher impact on increased property values in urban areas than in rural areas from nearby and adjacent protected lands.



Land values can increase with proximity to protected land in primarily urban areas within three counties along the Colorado Front Range.



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