

**MONTANA LAND INFORMATION ACT
GRANT APPLICATION PACKAGE
FISCAL YEAR 2020**

**MONTANA LAND
INFORMATION GRANT
APPLICATION**

**STATE FISCAL YEAR
2020**

JULY 1, 2019 – JUNE 30, 2020

APPLICATION FOR MLIA GRANT FUNDING

SECTION 1 – APPLICANT, PARTNER, AND PROPOSAL INFORMATION

Primary Applicant Contact Information <i>(Please fill this section out in its entirety)</i>	
Name of Agency/Entity:	Montana Department of Commerce
Department:	Montana Office of Tourism & Business Development
Division/Section:	Research & Information Services (RIS)
Street:	301 S. Park Avenue
City:	Helena
County:	Lewis & Clark
State:	Montana
Zip Code:	59620
<i>Project Manager Contact Information:</i>	
Name:	Mary Craigle
Title:	Bureau Chief
Email Address:	Mary.Craigle@mt.gov
Phone Number:	406.841.2742
Fax Number:	406.841.2871
<i>Secondary Project Manager Contact Information:</i>	
Name:	Tom Kaiserski
Title:	Program Manager
Email Address:	tkaiserski@mt.gov
Phone Number:	406.841.2034
MLIA Grant Funding Request & Match:	
Total Requested MLIA Funds:	\$5,156.86
Total Matched Funds:	\$4,200.00

Proposal Information	
Date Submitted:	
Identified Grant Priority:	Improve Local Government and Tribal Business Processes and Operations by <i>updating the RIS/CEIC database in support of a new data portal</i>
Annual or Multi-Year Proposal:	<i>This is a one-year proposal</i>
Proposal Prepared By:	Mary Craigle
Short Title of Proposal:	<i>Database design services to provide a recommended structure for the RIS/CEIC database</i>
<p>Executive Summary (<i>required – 250 maximum word count</i>):</p> <p>The Census and Economic Information Center (CEIC), in Commerce’s Office of Tourism and Business Development, is designated, under MCA 90-1-109, as the census, economic, and geographic information depository for Montana. CEIC has been the US Census Bureau’s designated State Data Center since 1978 and supports Decennial Census promotional efforts.</p> <p>RIS/CEIC is revamping its database to serve users through a new data portal. RIS is requesting MLIAC funds to contract for database design services. The goals of the design work are to allow RIS to produce dashboards quickly, be expansive enough for RIS needs, allow for a logical, long-term expansion of data / products, and not incur large storage or maintenance expenses. The structure must also ensure the stability of data end-products and the overall CEIC website. The database also needs be ready to incorporate the large data release from the 2020 Census.</p> <p>The consulting services are to determine optimally, how to fit the pieces together and identify the most efficient means of employing ARCGIS suite data, SQL database tables, Excel tables, Tableau data, etc. The goal of the database update is not to have tables that don’t update automatically.</p> <p>Once the structure is determined, RIS/CEIC will populate the tables and link to all the Montana spatial files. Our goal is to work with the Montana State Library on all products. In particular, the products created for the 2020 Census release will be designed collaboratively with MSL.</p> <p><u>Similar: Portals:</u></p> <p>Kansas https://ipsr.ku.edu/BIDC/news.php</p> <p>Headwaters https://headwaterseconomics.org/tools/economic-profile-system/ https://headwaterseconomics.org/tools/populations-at-risk/</p> <p>Michigan https://www.michigan.gov/openmichigan/0,4648,7-266-60201---,00.html</p> <p>Utah https://travel.utah.gov/research-planning/utah-tourism-industry-metrics</p>	

List All Past Awarded MLIA Grants:
<p>MLIA FY2017 Grant Project: Census Designated Places Update.</p> <p>MLIA FY2019 Grant Project: Voting District Project - Census 2020</p>

Funding Partners: <i>(required for each partner, copy box as needed)</i>	
Name of Contact:	Mary Craigle
Name of Agency:	Montana Department of Commerce
Street:	301 S. Park Avenue
City:	Helena
County:	Lewis & Clark
State:	Montana
Zip Code:	59620
Contact Email Address:	Mary.Craigle@mt.gov
Contact Phone Number:	841-2742

SECTION 2 – RELEVANCE

This MLIA proposal will fund procurement of needed database design services that will allow RIS/CEIC to carry out its statutory duties described in CEIC enabling legislation which states:

90-1-109 MCA. State census and economic information center. The department of commerce shall, in cooperation with other state, federal, and local agencies, establish and maintain a central depository of information, including computer-retrievable files, concerning the significant characteristics of the state, its people, economy, land, and physical characteristics. The department shall analyze and disseminate such information to state, federal, and local agencies and to the general public.

CEIC's statutory mission and work is wholly consistent with the purposes of the MLIA to develop a standardized, sustainable method to collect, maintain, and disseminate information. This project will assist CEIC to fulfill its mission.

Furthermore, the proposed project meets the following defined Land Information Plan Grant Category priority:

Build Geographic Information Systems to Improve Local & Tribal Government Workflows, Business Processes, and Operations

- a. Land Use Planning,
- b. Infrastructure & Asset Management,
- c. GIS Data & Program Development – Development of base geographic data layers that federate into the MSDI and support other programs, and
- d. GIS data development to support the U.S. Census Bureau's Geographical and Statistical Boundary Programs.

Accurate data presented spatially is critical to businesses, non-profit and public sector organizations, which rely on this information to make informed decisions including making private sector investments, identifying housing and healthcare needs, scaling of infrastructure including schools and roads, and determining the most appropriate strategies to deploy scarce resources to meet those needs and drive economic development.

Providing as much timely, accurate information for as many Montana geographies as possible is how CEIC fulfills its statutory and State Data Center requirements especially with the upcoming data which will be released from the 2020 Census.

SECTION 3 – PUBLIC BENEFIT

The work of RIS/CEIC is greatly enhancing the land information of every administrative entity in Montana (District, Place, City, County, Tribe etc.) and government agencies at every level. Take for example the voting district boundary project that was the subject of our 2019 MLIA grant. When complete, this project will provide updated electronic voting district boundary maps to all 56 Montana counties. This represents a major improvement for many counties that heretofore had only very limited voter precinct information in many instances consisting of only old, inaccurate, and difficult to replicate hard copy maps that were not digitized.

The database improvement project will impact the way users interact with the Administrative Boundary MSDI framework. With an improved database, RIS/CEIC will be able to provide data-enhanced geographic displays wherein multiple datasets (ex. employment, veterans, housing, etc.) can be overlaid on these established geographic boundaries. The improved database will allow us to accomplish these tasks with faster turn-around times following data release and provide the user with customizable data displays. This proposal will have widespread public benefit in that it will assist RIS/CEIC in providing accurate, timely data to the public.

SECTION 4 – PROJECT MANAGEMENT AND ORGANIZATIONAL CAPABILITY

Mary Craige is the Bureau Chief of the Montana Department of Commerce RIS/CEIC and the Montana State Data Center Lead. Mary is also, through appointment by Governor Steve Bullock, the U.S. Census Bureau non-partisan redistricting liaison and the Census 2020 Governor's Liaison for Montana. Mary will be the project manager and oversee the project schedule, employees, contractors, budget and reporting.

In FY2017, CEIC was awarded and successfully completed an MLIA grant for the CEIC Census Designated Places Update. CEIC identified the need to update Census Designated Places (CDPs) across the state because many of the populated places in Montana were not represented with census boundaries and therefore detailed economic and demographic data is not available for these areas.

During this FY2017 project, CEIC collected 254 comments using a crowdsourced story map, phone calls, emails, GoToMeeting sessions and by attending conferences. A total of 43 counties were involved in the process; 311 new CDPs and updates to 14 current CDPs were suggestions to the U.S. Census Bureau. The CEIC Census Designated Places Update FY2017 grant concluded on November 16, 2016 and the final report was submitted to MSL the following day. Former CEIC staff member Leslie Zolman presented a brief overview of the successful project to MLIAC on November 18, 2016. The project was such a success that the U.S. Census Bureau used the project scope to develop in-house training for staff.

In FY2019, CEIC was awarded and is currently completing the MLIA FY2019 Voting District Project - Census 2020. Temporary RIS/CEIC employee Duane Lund is doing the voting district update work and the project is proceeding as planned and it's expected that voter district boundaries will be updated for all 56 Montana counties, submitted to the US Census Bureau by the end of the project in June 2019, and within the \$9,600 budget.

RIS/CEIC plans to contract with the State Information Technology Services Division (SITSD) of the State of Montana Department of Administration to provide the needed data base design services for this grant project. Initial meetings between RIS/CEIC and ITSD discussing the scope of work for this data base design project have already been held.

SECTION 5 – SCOPE OF WORK

Database Design Consulting

Goal 1: Develop a vision for the database and finalize database design costs (First milestone to be completed by ITSD and CEIC staff by the first week of August 2019).

Objective 1.1 Evaluate RIS/CEIC database needs given its mission and available tools. This work will be completed by RIS staff (Mary Craigle). It is estimated it will take 100 hours of staff time to complete.

- Task 1.1.1 Identify the initial data portal products and dashboards as well as internal research information needs for analysis by RIS staff. Develop a plan and timeline for initial releases and expansion based on user demand and staff priorities.
- Task 1.1.2 Identify and analyze the source and number of data tables including primary keys, variables, and tables that are produced from other data. Calculate the size of data sets. This information will be provided to the consultant.
- Task 1.1.3 Determine the types of programs and processes necessary to populate the dashboards.
- Task 1.1.4 Prepare an initial database plan that discusses all elements and processes completed in Tasks 1.1.1 through 1.1.3 including table relationships, keys, and joins. This information will be provided to the consultant.
- Task 1.3.6 Finalize ITSD database design consulting costs – for the purpose of this grant RIS/CEIC has estimated the one-time database design cost at \$5,156.86 and will finalize those costs at this stage of the grant project.

Goal 2: Outline database relational design based on vision (Second milestone to be completed by SITSD and CEIC staff by the first week of September 2019)

Objective 2.1 SITSD provide overall database design

- Task 2.1.1 Design structure of variable and table relationships
- Task 2.1.2 Integrate SQL database tables, ARCGIS suite data, Excel Tables, etc.

Goal 3: Provide guidance in how all the various components of the database will fit together and normalize the design (Third milestone to be completed by SITSD and CEIC staff by the first week of October 2019)

Objective 3.1 SITSD provide overall database relationships, integrity and normalization

- Task 3.1.1 Identify what is needed to produce the information and automate the trends and analysis RIS/CEIC needs for both the dashboards and day-to-day research.
- Task 3.1.2 Ensure stability of dataset to meet the demands of the overall RIS/CEIC websites and internal research processes
- Tasks 3.1.3 Normalize final design and make sure all design integrity rules are met

Goal 4: Review draft design with key stakeholders (Fourth milestone to be completed by CEIC by the last week of October 2019)

Objective 4.1 RIS staff will present draft design to MSL staff to make sure planned design and processes meet requirements.

- Task 4.1.1. Provide draft design report to MSL for input and comments
- Task 4.1.2. Meet with MSL to discuss design and future work necessary to integrate information into the Montana GIS Data List matching MSDI admin boundaries.
- Task 4.1.3. Discuss future publication of GIS and data products created from the database once completed including what is required from the 2020 Census information.
- Task 4.1.4 Develop a preliminary plan and timeline with MSL for publishing GIS products and associated metadata; and registering in the Montana GIS Data List

Goal 5: Provide a final database design that will be ready for the large data release following completion of the 2020 Census (Fifth milestone to be completed by ITSD and CEIC staff by the first week of November 2019)

Objective 5.1 Produce a normalized design schema that is expansive enough for RIS/CEIC needs but does not incur large storage and maintenance expenses

- Task 5.1.1 Review and finalize consultant's report.

Goal 6: Meet all grant requirements (Sixth Milestone to be complete by the first week of November 2019. It should be noted that this sixth milestone will be completed by CEIC staff and is a time dependent task. Receipt of the final report are dependent on all other goals and task being complete.)

Objective 6.1 Submit quarterly update reports and final report to the Montana State Library.

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Task 6.2.1 Quarterly update reports will be submitted by the project manager to the Montana State Library according to the schedule set in the statement of work document. Each report will include an update on each deliverable, any deviations from the timeline and any budget issues encountered along with a financial report.

Task 6.2.2 A final report will be submitted within 30 days of the completion of the project, which will include a copy of the initial design plan prepared by RIS, a copy of the preliminary plan developed jointly by RIS/MSL for producing products once database is operational, and the final database design report including a design schema.

Task 6.2.3 The project manager will provide a brief update at the next MLIAC meeting following the completion of the project if time is available on the agenda.

Proposed Project Timeline – Dates also shown after each goal

Goal	Task	Start Date	End Date	Duration	19-Jul	19-Aug	19-Sep	19-Oct	19-Nov
	CEIC Database Design								
Goal 1	Develop a vision for the database and finalize database design costs	7/1/2019	8/9/2019	40d		Goal 1			
Goal 2	Outline database relational design based on vision	8/10/2019	9/6/2019	27d		Goal 2			
Goal 3	Provide guidance in how all the various components of the database will fit together and normalize the design	9/6/2019	10/4/2019	28d			Goal 3		
Goal 4	Review draft design with key stakeholders	10/4/2019	10/31/2019	27d				Goal 4	
Goal 5	Provide a final database design that will be ready for the large data release following completion of the 2020 Census	10/31/2019	11/8/2019	8d					Goal 5
Goal 6	Meet all grant requirements	7/1/2019	11/8/2019	131d					Goal 6

SECTION 6 – BUDGET JUSTIFICATION AND BUDGET TABLE

RIS/CEIC will contract with the State Information Technology Services Division (SITSD) of the State of Montana Department of Administration to provide the needed data base design services for this grant project. Initial meetings between RIS/CEIC and ITSD discussing the scope of work for this data base design project have already been held. Based on our discussion with ITSD and past database management experience we have estimated one-time database design services costs using SITSD rate chart below. RIS/CEIC will provide 100 hours of in-kind staff time at \$42 per hour interfacing with SITSD and MSL as match.

RIS/CEIC have adequate staff and budget to complete and maintain the database once the optimum design is established.

Estimated one-time costs based on FY19 rates (this is not a fixed rate bid, it is only an estimate):

Catalog Item	Rate	Number of Units	Estimated One-Time Cost
Application Development	\$120.00/Hour	20 hours	\$2400.00
DBA Professional Services	\$120.00/Hour	20 hours	\$2400.00
Application Hosting .NET Initial Setup	\$351.86/App	1	\$351.86
Total Estimated One-Time Costs:			\$5,151.86

STATEMENTS OF SUPPORT (IF APPLICABLE)



STEVE BULLOCK
GOVERNOR

February 14, 2019

Dear MLIA Grants Committee Members;

I write this letter in strong support of the proposal from the RIS/CEIC Bureau here at the Department of Commerce to request MLIA funding for database design services.

My staff and I have been working with the Bureau on transitioning the database for some time and have discussed the various aspects of the project. I support the decision to get expert assistance on the design to ensure that the database structure fulfills both immediate and long-term needs. This database is critical to the various missions of RIS / CEIC, with its missions as a state data repository, State Data Center for the U.S. Census Bureau, and economic and tourism research. I believe having a database design expert assist in the initial development will pay for itself many times over.

As an agency, Commerce does not have the IT in-house expertise or staff/financial support to provide the required services. I appreciate RIS/CEIC working with us and their initiative to pursue funding.

Thank you for your consideration of RIS as a grantee. If you have any questions, you can contact me at (406) 841-2705 or lkrause@mt.gov

Sincerely,
A handwritten signature in cursive script that reads "Larry Krause".

Larry Krause

Information Technology Manager, MT Department of Commerce

MLIA Grant budget summary table

	MLIA Summary	Applicant Summary			
Category	MLIA Share	Applicant Cash	Applicant In- kind	Applicant Subtotal	Total - MLIA Share, Applicant Subtotal, Partner Subtotal
a. Personnel	\$5,156.86		\$4,200	\$4,200	
a. 1. Fringe Benefits					
b. Travel					
c. Equipment					
d. Supplies & Materials					
e. Contractual					
f. Other					
Total	\$5,156.86		\$4,200	\$4,200	\$9,356.86

SECTION 7 – RENEWABLE GRANT ACCOUNTABILITY

FY2019 CEIC Voting District Project – Census 2020 grant

For FY2019 CEIC was awarded and is currently completing the MLIA FY2019 Voting District Project - Census 2020. Temporary RIS/CEIC employee Duane Lund is doing the voting district update work and the project is proceeding as planned and it's expected that voter district boundaries will be updated for all 56 Montana counties, submitted to the US Census Bureau by the end of the project in June 2019 and within the \$9600 budget.

FY2017 CEIC Census Designated Places Update grant

In FY2017 CEIC was awarded and successfully completed an MLIA grant for the CEIC Census Designated Places Update. CEIC identified the need to update Census Designated Places (CDPs) across the state because many of the populated places in Montana were not represented with census boundaries and therefore detailed economic and demographic data is not available for these areas.

During this FY2017 project CEIC collected 254 comments using a crowdsourced story map, phone calls, emails, GoToMeeting sessions and by attending conferences. A total of 43 counties were involved in the process; 311 new CDPs and updates to 14 current CDPs were suggestions to the U.S. Census Bureau. The CEIC Census Designated Places Update FY2017 grant concluded on November 16, 2016 and the final report was submitted to MSL the following day. Former CEIC staff member Leslie Zolman presented a brief overview of the successful project to MLIAC on November 18, 2016. The project was such a success that the U.S. Census Bureau used the project scope to develop in-house training for staff.

SECTION 8 – CHECKLIST

Initial or mark n/a	Completed Required Task
Mac	Proposal Prepared by an outside party – I have read this document in its entirety. (if applicable)
Mac	Section 1 – Applicant, Partner, and Proposal Information
Mac	Primary Applicant Information
Mac	Funding Partner <i>(if applicable)</i>
Mac	Proposal Information
Mac	List All Past Awarded MLIA Grants
Mac	Section 2 – Relevance (300 max word limit)
Mac	Section 3 – Public Benefit (if applicable)
Mac	Section 4 – Project Management (if applicable)
Mac	Section 5 – Scope of Work Narrative (4-page limit)
Mac	Section 6 – Budget Justification Narrative and Table (3-page limit)
Mac	Budget Justification Narrative
Mac	Complete Budget Table
Mac	Section 7 – Funding Partner Statements of Support (if applicable)
Mac	Section 8 – Renewable Grant Accountability Narrative (if applicable)
Mac	FY2019 Grantee Report <i>(if applicable)</i>
Mac	Past MLIA Grant Project Narratives (FY2018 - FY2015) <i>(if applicable)</i>
Mac	Section 9 – A Signed Authorizing Statement

SECTION 9 – AUTHORIZING STATEMENT

Authorizing Statement

I hereby certify that I have read the application and the information and all statements in this application are true, complete and accurate to the best of my knowledge and that the project or activity complies with all applicable state, local and federal laws and regulations.

I further certify that this project will comply with applicable statutory and regulatory standards.

I further certify that I am (by my signature) authorized to enter into a binding agreement with the Montana State Library to obtain a grant if this application receives approval.

Mary Craigle

Name (print or type)

**Research & Information Services Bureau Chief
/ Census & Economic Information Center Program Manager**

Title (print or type)



Signature and Title of Authorized Representative(s) of Public Entity Applicant

February 14, 2019

Date