

# Montana State Library Funding Options

OPTIONS FOR CURRENT DIGITAL LIBRARY SERVICES  
WILKINSON, KRIS

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## INTRODUCTION

HB 633 requires the Legislative Finance Committee to conduct a study of a funding formula to adequately and fairly distribute the cost of administering and operating the natural resource information system (NRIS) and other digital library services among state agencies and private or commercial entities. The purpose of this report is to provide various funding options for current digital library services provided by the Montana State Library (MSL).

The following report sections outline options for changes to funding digital library services including:

- Increasing state agency fees for the natural resources information system
- Establishing state agency fees for the geographic information system including cadastral mapping
- Establishing state agency fees for MSL state agency digital archive services
- Increasing the fee for filing documents with the county clerk to increase funding for the Montana Land Information Act
- Establishing additional license fees for professions that utilize the MSL digital services
- Utilizing available fund balance to reduce general fund

## DIGITAL LIBRARY SERVICES FUNDING

### FY 2020 DIGITAL LIBRARY SERVICES

As discussed in the LFD report, [Montana State Library expenditures](#) for digital library services were \$2.1 million in FY 2019. The following figure shows the budgeted expenditures for digital library services in FY 2020 by funding source.<sup>1</sup>

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<sup>1</sup> General fund includes appropriation authority from HB 2, and HB 175. State and federal special revenue appropriations include HB 2, HB 175, and continuing authority from FY 2019, mainly for federal grants extended in HB 4. In FY 2020, MSL anticipates using \$4,606 in trust funds for information management.

Montana State Library Digital Library Services FY 2020					
	General Fund	State Special	Federal Special	Trust Funds	Total
Services					
Information Management	\$443,253	\$645,823	\$709,464	\$4,606	\$1,803,146
Information Products	341,895	117,139	76,334	0	535,368
Patron Services	65,840	30,000	0	0	95,840
Montana Land Information	45,043	405,828	0	0	450,871
Total Digital Library	<u>\$896,031</u>	<u>\$1,198,790</u>	<u>\$785,798</u>	<u>\$4,606</u>	<u>\$2,885,225</u>
% of total funding	31.1%	41.5%	27.2%	0.2%	100.0%

As shown, the general fund currently supports 31.1% of budgeted expenditures for digital library services in FY 2020. State special revenue supports 41.5% and derived from coal severance taxes, fees for filing documents, and charges to state agencies. Federal special revenue supports 27.2% and includes federal Natural Resources Conservation Service grants.

## FY 2020 INFORMATION MANAGEMENT COMPONENTS

NRIS and other digital library services are mainly budgeted through information management. Within the \$1.2 million budget for information management are several components. The following table shows the FY 2020 budget for the various components of information management.

Montana State Library Information Management FY 2020 Budget					
Component	General Fund	State Special	Federal Special	Trust Funds	Total
Natural Resource Information System	\$249,705	\$409,303	\$692,593	\$0	\$1,351,601
Government Information	91,709	29,384	0	0	121,093
Information Operations	33,106	3,000	0	0	36,106
Land Operations	68,732	192,816	0	0	261,548
Other short-term projects	0	11,320	16,871	4,606	32,797
Total Information Management	<u>\$443,253</u>	<u>\$645,823</u>	<u>\$709,464</u>	<u>\$4,606</u>	<u>\$1,803,146</u>

The natural resource information system includes funding for the Natural Heritage Program, geographic information system (GIS) databases, and water information used for mapping waterways in Montana.<sup>2</sup>

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<sup>2</sup> About \$500,000 of the federal funds were received and budgeted in FY 2020 but will be expended over the next several years according to MSL.

The government information budget is established for services provided mainly to state agencies, such as web archives or digitization of state publications. Information operations refers to the overall administration of information management within MSL.

Land operations provides the majority of the budget for the Montana Land Information Act (MLIA). The purpose of MLIA is to develop a standardized, sustainable method to collect, maintain, and disseminate information in digital formats about the natural and artificial land characteristics of Montana.

The remaining sections of the report discuss alternative funding mechanisms to reduce or eliminate general fund support for digital library services, especially funding included in the budget as information management.

## **STATE AGENCY ASSESSMENTS**

### **Natural Resource Information and the Geographic Information Systems**

The natural resource information system is a program of the library for the acquisition, storage, and retrieval of existing data relating to the natural resources of Montana. Data is made available to the public at no charge. As defined in law, the Montana Natural Heritage Program is a program of NRIS that acquires information related to the flora, fauna, biological community types, and water resources in the state. The other statutory program of NRIS is the Water Information System which is tasked with making information about Montana's water resources available to state agencies and interested persons. Natural resource information made available through the Montana State Library is useful to land-use managers, engineers, biologists, developers, researchers, students, and others.

NRIS services such as website management, database administration, data updates, data acquisition, outreach and training, user requests, network maintenance and administration, and program administration and administrative support are considered "core" services. The agency uses a combination of general fund, state agency assessments, and federal special revenues to fund these "core" services. In FY 2019 core services expenditures were about \$608,000<sup>3</sup> supported by \$168,300 in general fund and the balance with state and federal special revenue.

Around 1997 the state agencies with the highest NRIS usage were assessed for a portion of their "core" services usage including the Departments of Fish, Wildlife, and Parks, Transportation, Natural Resources and Conservation, Environmental Quality, and the Montana University System. The core services assessment has formed the basis for the five state agency assessments since then and has not been revised to consider other state agencies usage or changes in the levels of services by the five agencies.

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<sup>3</sup> In the 2019 biennium, state funding to the MSL was reduced by about \$100,000. In FY 2019 this was offset by federal funds for contracted NRIS services.

Since 1997 the clearinghouse that is NRIS has been interrelated with the geographic information system (GIS), which could be considered a software, as well as the provision of applications and services to the public such as the Montana cadastral application. In addition to the agencies supporting the NRIS core services, the GIS mapping functions are utilized by:

- Department of Administration
- Department of Agriculture
- Department of Commerce
- Governor's Office
- Department of Labor and Industry
- Legislative Branch
- Montana Historical Society
- Department of Public Health and Human Services
- Department of Revenue

Other agencies may utilize the cadastral mapping application without utilizing the GIS mapping functions. For example, currently the Department of Military Affairs' Disaster and Emergency Services Division is using the cadastral mapping application as part of its coronavirus preparations.

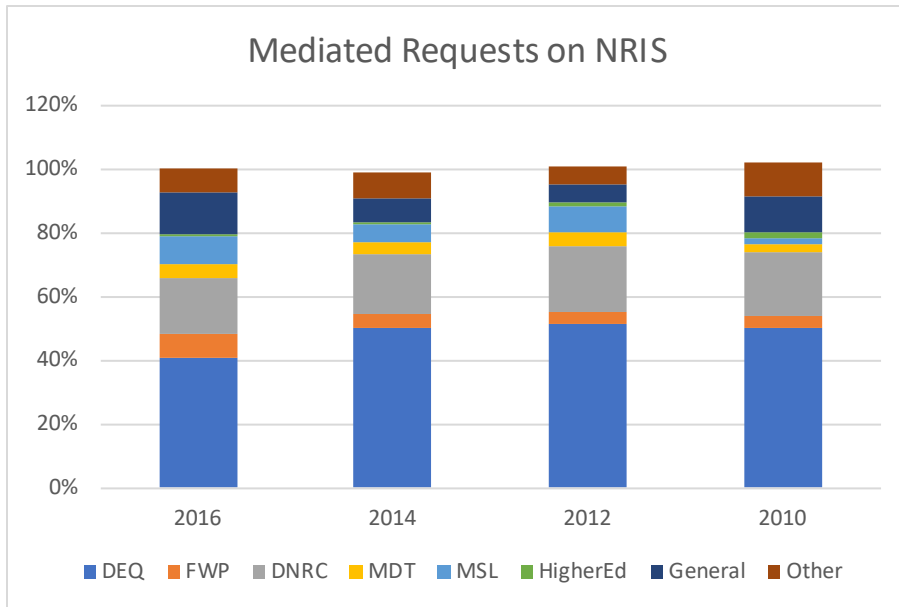
The issue for legislative consideration of the current funding level for state agencies is twofold:

- Which state agencies should be assessed for digital library services
- To what extent should state agencies be assessed

To develop an updated assessment for state agencies, MSL data on GIS mapping functions, a key component of NRIS, was examined. To utilize GIS mapping functions, state agencies use the following:

- GIS web services utilization
- Map viewer accounts
- Map viewer user sessions
- Mediated requests to MSL staff for assistance in working with GIS

Mediated requests are reference requests that require a subject matter expert to provide data and interpretation of information. Of the four services listed, mediated requests require the most MSL staff time. The following figure shows mediated requests to MSL for the NRIS system between FY 2010 and FY 2016.



As shown, the state agencies that currently support NRIS make up the majority of the agencies that make mediated requests for subject matter experts to MSL. DEQ made over 40.0% of the requests in FY 2016.

To more equitably distribute the costs of maintaining agency databases, assessments to agencies could be based on the percentage of GIS web services utilization, map viewer accounts, map viewer sessions, mediated requests related to GIS, or a combination of all four. The following figure shows, by state agency, the percentage of:

- GIS web services utilization
- Map viewer accounts each agency has
- User sessions
- Mediated requests

It also shows an allocation of FY 2020 budgeted expenditures for to each agency. The amount allocated is the general fund and state special revenue budgeted expenditures for NRIS based on the percentage of services provided to each state agency.

Because agency use of the system is based on all four items, a weighted formula was also developed to allocate NRIS expenditures in FY 2020.<sup>4</sup> An actual determination of the appropriate allocation would need to be completed if the weighted formula funding option was adopted. Additional state agencies that use NRIS are included in the assessment.

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<sup>4</sup> FY 2020 appropriations supported by federal special funds are eliminated from this example.

Montana State Library General Fund and State Special Revenue State Agency NRIS FY 2020 Allocations									
Agency	% GIS web services utilization	% Map Viewer Account	% Use Sessions	% Mediated Requests	Costs by GIS web services	Costs Allocated by viewer acct	Costs allocated by use sessions	Costs allocated by mediated requests	Weighted cost allocation
Department of Administration	3.9%	0.0%	0.0%	0.0%	\$25,701	\$0	\$0	\$0	\$5,140
Department of Agriculture	0.8%	1.7%	1.1%	1.3%	5,272	11,475	7,565	8,390	8,095
Department of Commerce	1.6%	0.2%	0.0%	0.0%	10,544	1,639	0	0	2,437
Commissioner of Higher Ed/MUS	0.0%	9.5%	4.1%	32.4%	0	62,294	26,898	213,565	75,264
Department of Environmental Quality	5.4%	14.9%	22.3%	6.5%	35,586	98,358	147,098	42,713	88,951
Department of Fish, Wildlife, and Parks	24.0%	35.3%	31.9%	52.0%	158,160	232,781	210,140	342,466	237,354
Governor's Office	10.9%	0.0%	0.0%	0.0%	71,831	0	0	0	14,366
Legislative Branch	0.0%	0.2%	0.0%	0.2%	0	1,639	0	1,525	709
Department of Labor and Industry	8.5%	0.0%	0.0%	0.0%	56,015	0	0	0	11,203
Montana Historical Society	5.4%	0.0%	0.0%	0.0%	35,586	0	0	0	7,117
Department of Natural Resources and Conservation	30.2%	34.3%	20.7%	3.9%	199,018	226,224	136,171	25,933	139,191
Department of Public Health and Human Services	5.4%	0.2%	0.0%	0.0%	35,586	1,639	0	0	7,445
Department of Revenue	3.9%	0.0%	0.0%	0.0%	25,701	0	0	0	5,140
Department of Transportation	0.0%	3.5%	19.9%	3.7%	0	22,950	131,128	24,407	56,587
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>\$659,000</b>	<b>\$659,000</b>	<b>\$659,000</b>	<b>\$659,000</b>	<b>\$659,000</b>

The preceding figure does not take into account the funding that is already assessed to some of the agencies. This is presented in the narrative section discussing changes to general fund if agency assessments are adopted.

### Agency Digital Archives

Statute requires state agencies to notify MSL of their state publications and to make their state publication available to MSL. The digitization of state agency information including the creation of websites has changed the way state publications are retained by the MSL. As part of its digital library services, MSL archives state agency websites regularly to preserve the information. Currently this service is provided to state agencies without charge.

As shown in the figure on page 2, in FY 2020 the total general fund budgeted for government operations and information management was \$125,000 with state agencies making up 85.6% of the archival services or about \$107,000 of the FY 2020 budget. The following figure provides the state agency percentages of web domains that are archived by MSL, and an allocation of general fund costs associated with MSL information management. General fund costs are allocated by the percentage of web domains archived.

Montana State Library Allocation of General Fund State Agency FY 2020 Archival Services		
Agency	% domains archived	Costs Allocated by domains
Board of Public Education	0.1%	\$111
Department of Administration	5.8%	6,216
Department of Agriculture	0.5%	555
Department of Commerce	6.1%	6,549
Consumer Counsel	0.0%	0
Commissioner of Higher Ed/MUS	0.9%	999
Commissioner of Political Practices	0.2%	222
Department of Corrections	0.5%	555
Department of Environmental Quality	1.7%	1,776
Department of Fish, Wildlife, and Parks	1.3%	1,443
Governor's Office	2.4%	2,553
Judicial Branch	1.0%	1,110
Department of Justice	0.8%	888
Department of Labor and Industry	60.2%	64,378
Legislative Branch	1.5%	1,554
Department of Livestock	0.4%	444
Department of Military Affairs	0.4%	444
Montana Arts Council	0.1%	111
Montana Historical Society	1.2%	1,332
Montana School for the Deaf and Blind	0.1%	111
Montana State Fund	0.6%	666
Department of Natural Resources and Conservation	1.7%	1,776
Office of the Public Defender	0.2%	222
Office of Public Instruction	0.7%	777
Department of Public Health and Human Services	6.2%	6,660
Public Employees' Retirement System	0.4%	444
Public Service Commission	0.1%	111
Department of Revenue	0.8%	888
Secretary of State	1.5%	1,554
State Auditor's Office	0.9%	999
Teachers' Retirement System	0.4%	444
Department of Transportation	1.0%	1,110
<b>Total</b>	<b>100.0%</b>	<b>\$107,000</b>

In addition to archiving state agency websites, MSL archives its own websites and certain federal websites that have implications for Montana. Associated general fund of \$18,000 for information management was not included in the calculations of the funding allocations to state agencies as a result.

The legislature may wish to consider expanding this assessment to reduce a portion of the \$341,895 in general fund support for information products. This function builds and supports the



applications used by the public while information management staff manage the data accessed via the applications.

## Changes to General Fund If Agency Assessments Are Adopted

In the previous narrative sections, Legislative Fiscal Division (LFD) staff have identified general fund that could be offset by assessing state agencies for MSL services. However, because most state agencies are partially funded from general fund, the assessments would not completely offset a reduction of the general fund provided to MSL. The following figure shows an example of potential state agency costs allocations for archiving agency websites and NRIS. The figure also shows potential state agency assessments, current assessments for the agencies supporting NRIS, additional new assessments, and the funding supporting the proposed assessments based on FY 2020 HB 2 appropriations for each agency.

Montana State Library State Agency Assessments and Funding*										
State Agency	Web Services	NRIS**	Total Assessment	Current Assessment	Additional Assessment	Agency Funding				
						General Fund	State Special	Federal Special	Proprietary or Trust	
Board of Public Education	\$111	\$0	\$111	\$0	\$111	\$54	\$57	\$0	\$0	\$0
Consumer Counsel	0	0	0	0	0	0	0	0	0	0
Commissioner of Higher Ed/MUS	999	75,264	76,263	43,942	32,321	27,399	2,766	2,086	71	
Commissioner of Political Practices	222	0	222	0	222	222	0	0	0	0
Department of Administration	6,216	5,140	11,356	0	11,356	4,778	3,775	7	2,795	
Department of Agriculture	555	8,095	8,650	0	8,650	394	7,386	611	258	
Department of Commerce	6,549	2,437	8,985	0	8,985	1,571	1,544	5,870	0	
Department of Corrections	555	0	555	0	555	509	15	31	0	
Department of Environmental Quality	1,776	88,951	90,727	88,307	2,420	196	1,364	860	0	
Department of Fish, Wildlife, and Parks	1,443	237,354	238,797	68,857	169,940	0	126,743	43,197	0	
Department of Justice	888	0	888	0	888	295	564	12	17	
Department of Labor and Industry	64,378	11,203	75,581	0	75,581	1,746	44,492	29,343	0	
Department of Livestock	444	0	444	0	444	98	284	62	0	
Department of Military Affairs	444	0	444	0	444	61	10	374	0	
Department of Natural Resources and Conservation	1,776	139,191	140,967	48,813	92,154	38,132	50,436	3,587	0	
Department of Public Health and Human Services	6,660	7,445	14,105	0	14,105	3,672	1,171	9,261	0	
Department of Revenue	888	5,140	6,028	0	6,028	5,547	99	28	354	
Department of Transportation	1,110	56,587	57,697	31,622	26,075	0	9,784	16,290	0	
Governor's Office	2,553	14,366	16,919	0	16,919	16,919	0	0	0	
Judicial Branch	1,110	0	1,110	0	1,110	1,036	72	2	0	
Legislative Branch	1,554	709	2,263	0	2,263	1,947	317	0	0	
Montana Arts Council	111	0	111	0	111	41	18	53	0	
Montana Historical Society	1,332	7,117	8,449	0	8,449	4,752	1,440	1,267	989	
Montana School for the Deaf and Blind	111	0	111	0	111	105	4	3	0	
Montana State Fund	666	0	666	0	666	0	0	0	666	
Office of the Public Defender	222	0	222	0	222	222	0	0	0	
Office of Public Instruction	777	0	777	0	777	642	2	133	0	
Public Employees' Retirement System	444	0	444	0	444	0	0	0	444	
Public Service Commission	111	0	111	0	111	0	104	7	0	
Secretary of State	1,554	0	1,554	0	1,554	0	0	0	1,554	
State Auditor's Office	999	0	999	0	999	0	999	0	0	
Teachers' Retirement System	444	0	444	0	444	0	0	0	444	
<b>Total</b>	<b>\$107,000</b>	<b>\$659,000</b>	<b>\$766,000</b>	<b>\$281,541</b>	<b>\$484,459</b>	<b>\$110,339</b>	<b>\$253,445</b>	<b>\$113,082</b>	<b>\$7,593</b>	

\* Funding is allocated by FY 2020 HB 2 funding for the agency  
\*\* NRIS services are shown using the weighted allocation figures for this example

State agency assessments for MSL digital library services, as outlined in the preceding figure, could reduce MSL general fund support for:

- \$249,705 in NRIS services
- \$107,000 in information management

As reflected in the preceding figure, assessing state agencies for web domain archives, and NRIS related functions could potentially offset general fund supporting MSL by \$356,705 but require \$110,339 in state agency general fund to pay the assessment. The net impact would be a reduction of \$246,366 in general fund statewide in this example.

## **MONTANA LAND INFORMATION ACT (MLIA)**

As discussed previously, the purpose of MLIA is to develop a standardized and sustainable way to collect, maintain, and disseminate information in digital form about the land characteristics of Montana. HB 38, enacted by the 2013 Legislature, transferred the administrative functions and funding of the Montana Land Information Act and the infrastructure of the base map service center used to provide the land characteristics from the Department of Administration to the Montana State Library. HB 2, enacted by the 2013 Legislature, included \$1.9 million in state special revenue appropriation authority contingent on the passage and approval of HB 38. The funding transferred to MSL was allocated:

- 2.50 FTE and \$414,324 in personal services<sup>5</sup>
- \$287,554 in operating expenses for coordination and spatial data infrastructure support
- \$1,205,543 in MLIA grant funds to local and tribal governments

Currently, as shown in the figure on page 2, general fund is budgeted at \$68,732 for land operations with the remainder of the funds coming from the MLIA state special revenue account. In addition, the MLIA functions are on the MSL website and utilize services funded through the information products portion of the budget.

State special revenues generated from fees for filing documents such as land titles with county clerks support the expenditures for MLIA. Of the \$7.00 collected by county clerks for individuals filing various documents, \$0.75 is deposited into the MLIA account. The \$0.75 deposited into the MLIA account generates about \$820,000 a year.

One consideration for the legislature would be to increase the fee for filing documents with county clerks. An additional \$0.75 could generate an estimated \$820,000<sup>6</sup> in additional state special revenue for MLIA. If the fee were increased by \$1.00 per document to \$8.00, the legislature could direct additional funds to MLIA and allow the remaining \$273,000 generated from the increase to

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<sup>5</sup> The MSL transferred \$599,873 to personal services and \$10,839 to operating expenses from grants in the 2015 biennium. In subsequent biennia MSL has continued to transfer grant appropriations to personal services. The Land Information Advisory Council establishes the budget for MLIA funds.

<sup>6</sup> Based on FY 2019 actual revenues

be deposited in either the county land information account or the county treasury. In FY 2020 \$69,000 in general fund was budgeted for MLIA operations.

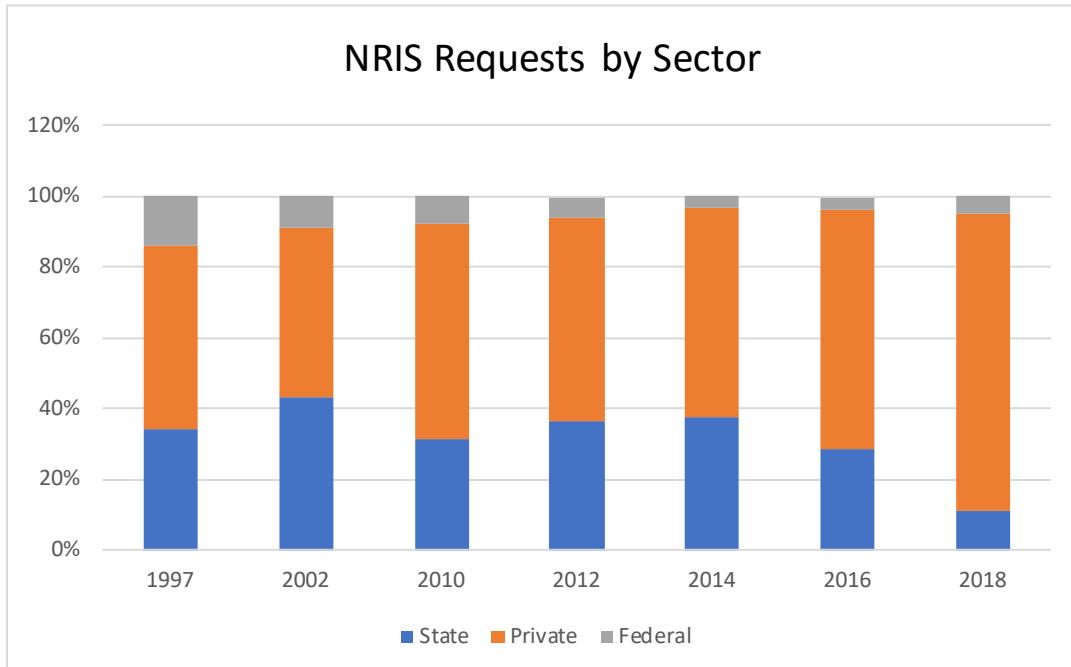
As shown in the chart on page 2 additional funding would be available to offset other general fund used to support MLIA activities such as information products.

## ASSESSMENTS FOR BUSINESS AND PROFESSIONALS LICENSEES

A number of businesses, professionals, and individuals utilize digital library services such as:

- Real estate agents
- Land developers
- Surveyors
- Engineers
- Environmental consultants
- Hunters
- Oil and gas companies
- Individuals examining water rights, aquatic invasive species, or environmental impact statements

The following figure shows NRIS usage requests by sector.



As shown, private use of the NRIS database is increasing. The section of the MSL digital services budget supporting this type of usage is information products. One method of allocating costs of information products to the private users would be establish a subscription service for users after

so many views of the website. According to MSL staff, MSL does not have e-commerce expertise on staff to know what it might cost to develop the architecture of this type of IT system or to maintain the IT system. In addition to the cost of a system, MSL is also concerned about the viability of charging for data as a business model because of some of the concerns about MSL’s ability to identify specific users. MSL maintains that without current information about who the unique users are MSL would not be able to determine how many subscribers might be anticipated or how much to charge to generate sufficient revenue to accomplish the goals of funding digital library services and the added costs that come with maintaining a system.

An alternative might be to add on a fee to each professional or business license to recover a portion of the costs of providing information services. The following chart shows the potential revenue that an additional fee for professional and occupational licenses administered by the Department of Labor and Industry might generate based on FY 2018 applications.

Montana State Library Digital Library Services Surcharges to Professional Licenses Based on FY 2018 License Applications				
	FY 2018 Applications	Revenue Per \$1	Revenue Per \$2	Revenue Per \$3
New Licenses	12,784	\$12,784	\$25,568	\$38,352
Renewed Licenses	64,027	64,027	128,054	192,081
<b>Total Revenue</b>		<b>\$76,811</b>	<b>\$153,622</b>	<b>\$230,433</b>

This assumes all professions and occupations licensed in Montana utilize MSL web services. Further consideration of which professions and occupations should be completed if the legislature wishes to move forward with this policy option.

### **ADDITIONAL STATE SPECIAL REVENUES AVAILABLE**

As reflected in the figure on page 2, 41.5% of FY 2020 budgeted expenditures are funded with state special revenues. The following figure shows the funds, budgeted expenditures, anticipated revenues and ending fund balance for the state special revenue funds supporting digital library services in FY 2020. Montana Land Information Act funds support development and maintenance of land information for Montana. Coal severance taxes may be used for basic library services for residents of Montana through library federations and for costs associated with regional and national networking.

Montana State Library State Special Revenue FY 2020				
State Special Revenues	Beginning			Ending
	Fund Balance	Budgeted Expenditures	Estimated Revenues	Fund Balance
Coal Severance Library	202,033	550,000	550,000	202,033
Digital Library Services	0	306,641	306,641	0
Montana Land Information Act	979,944	950,923	811,508	840,529
<b>Total State Special Revenues</b>	<b>1,181,977</b>	<b>\$1,807,564</b>	<b>\$1,668,149</b>	<b>\$1,042,562</b>

As shown in the preceding figure, state special revenue funds have an estimated \$1.0 million fund balance available to offset general fund for digital library services supported by the Montana Land Information Act (MLIA) and coal severance library accounts. However, once the fund balance is utilized, either expenditures would need to be reduced or additional funding generated to support ongoing expenditures.

## SUMMARY

The legislature has a number of options for reducing general fund support for digital library services including:

- Adjusting assessments for the NRIS program to expand the number of agencies assessed and increasing the assessment to more fully fund the program
- Assessing state agencies for archiving web domains
- Increasing the MLIA revenue by increasing the fee for documents filed with county clerks
- Developing assessments for private enterprises through increased fees on professional and occupational licenses
- Using available state special revenue fund balance of \$1.0 million to temporarily reduce general fund appropriations in future biennia