

# Technology and Resource Sharing Plan

Northern Waters Library Service

July 1, 2016 – June 30, 2019

## Introduction

Wisconsin statute s.43.24(2)(m) requires public library systems to participate in “planning with the division and with participating public libraries and other types of libraries in the area in regard to library technology and the sharing of resources.” Library technology plans must be submitted to the state at least once every five years.

A technology plan is no longer required for E-rate or the TEACH program (see 4ii here <https://www.fcc.gov/general/summary-e-rate-modernization-order>). However, library systems are required to provide a technology and resource sharing plan to DPI (43.24(2m) <http://docs.legis.wisconsin.gov/statutes/statutes/43/21>). The Department of Public Instruction encourages library systems to have a technology plan that is reviewed and updated consistently as a best practice.

## Background

Northern Waters Library Service was established in 1973 by Ashland, Bayfield, Burnett, Douglas, Iron, Sawyer, Vilas, and Washburn counties. The state of Wisconsin encouraged formation of public library systems such as NWLS in order to improve public library service and to make it available to all residents of the state. These two goals are reflected in the NWLS Mission Statement: “The mission of Northern Waters Library Service is to provide access to quality public library services through its member libraries.”

## Demographic Information

Ten of the system’s twenty-eight member libraries are established by communities of fewer than 1,000 people; nine libraries are located in communities with a population of 1,000 – 1,999; four libraries serve communities with a population between 2,000 and 3,999. The four remaining libraries are the Lac du Flambeau Public Library serving a population of 3,466, the Vaughn Public Library in Ashland, which has a population of 8,103; Olson Memorial Library, a joint library located in Eagle River serving a population of 12,970; and Superior Public Library with a population of 27,251.

While diversity is low in raw numbers, the NWLS area is home to approximately 6% of the state’s Native American population and NWLS serves three tribal libraries. The poverty level in the NWLS area is generally higher than the State of Wisconsin as a whole and 51% of students attending public schools receive free or reduced lunches. There is a great disparity throughout the NWLS region in this commonly used measure of poverty. The Grantsburg School District reports the lowest percentage of students receiving free or reduced lunches at 31% and the Bayfield and Lac du Flambeau School Districts report the highest percentage of 100%. Statewide, 41% of public school students receive free or reduced lunches.

**Comparison of Selected Composite Measures  
from 2014 Wisconsin Library Service Record**

Measure	NWLS			Statewide	
	Raw Data	Rank	Per Capita	Rank	Per Capita
Total Service Population	151,330	15			
Square Footage of Library Space	171,282	13	1.14	3	0.93
Annual Hours Open	60,302	9	0.40	2	0.12
Book and Serial Volumes Added	33,902	14	0.22	11	0.25
Book and Serial Volumes Owned	642,323	13	4.26	3	3.30
Audio Materials	42,092	14	.27	6	.26
Video Materials	78,484	12	.52	2	.34
Circulation	1,231,015	14	8.16	12	10.08
Interlibrary Items Loaned	180,370	14	1.2	8	1.59
Interlibrary Items Borrowed	185,685	13	1.23	9	1.60
Reference Transactions	39,530	17	.30	17	0.69
Library Visits	851,713	14	5.65	3	5.35
Library Program Attendance	44,945	16	0.10	5	.39
Total Library Income (All Sources)	7,011,385	15	46.48	6	45.38
Personnel Expenditures	3,879,393	15	25.72	10	28.58
Materials Expenditures - Print	398,732	15	2.64	12	2.86
Materials Expenditures - Audiovisual	158,116	13	1.05	7	.95
Materials Expenditures - Total	606,406	15	4.02	14	4.49
Total Operating Expenditures	6,043,317	15	40.06	11	42.30
Staff FTE - MLS librarians	11.2	15	.0.00007	14	0.00013
Total Staff FTE	84.64	15	.578	7	.00560
Total Non-Resident Circulation	626,807	12	4.2	5	3.47
Reference: <a href="http://pld.dpi.wi.gov/files/pld/xls/14state.xls">http://pld.dpi.wi.gov/files/pld/xls/14state.xls</a>					

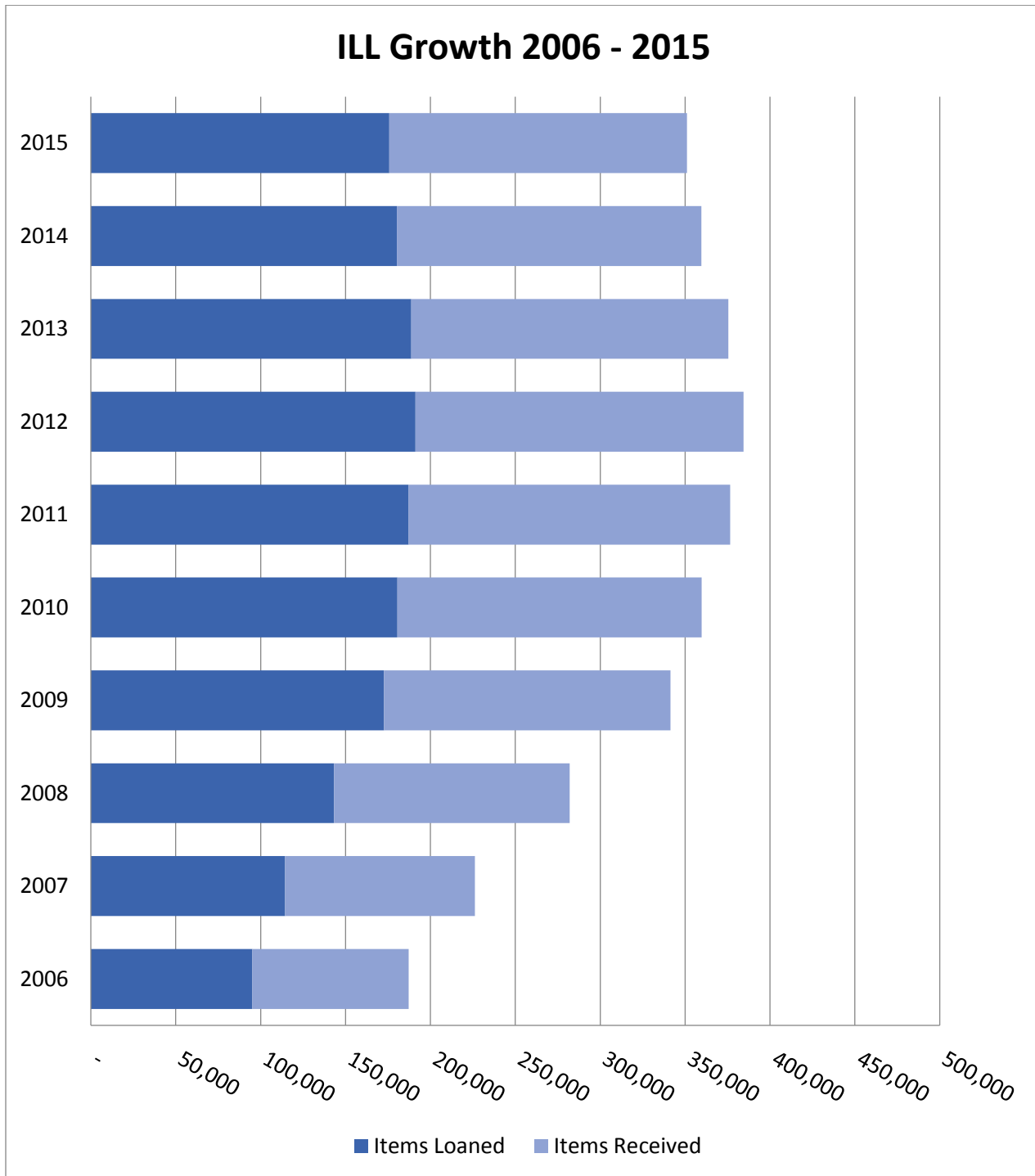
NWLS ranks near its population ranking of 15<sup>th</sup> of all Wisconsin library systems on the raw data for a number of measures. Adjusting for population, the system generally ranks higher when per capita measures are compared. Several of the measures were particularly striking. NWLS libraries ranked fifth in the State in total non-resident circulation, second in video materials per capita, sixth in audio materials per capita, and second in annual hours open.

As reported in the 2014 Wisconsin Library Service Record, there is significant variation in the budgets, collections, and staff levels and services provided by NWLS member libraries. The tables in Appendix A compare individual system libraries on several measures. Per capita results are based on municipal population figures.

**Current Services**

The role of technology in public libraries continues to grow in importance, especially in resource sharing. The advent of shared integrated library systems (ILS) in Wisconsin has led to rapid growth in borrowing between libraries. Thanks to Merlin, the shared ILS of NWLS, not only is resource sharing increasing

rapidly, but also more requests than ever before are being filled within the system. The graphs below show the growth of NWLS area resource sharing.



In January 2000, Superior Public Library became the first Merlin member to go live. By the end of that year, a total of nine libraries and Northern Waters Library Service were participating in the shared ILS. Today, 26 of 28 NWLS member libraries are full participants in Merlin.

Merlin operates using Innovative Interfaces, Inc. (III) software. It offers central bibliographic and patron databases for its members, an online public access catalog (OPAC) available via the Internet, overdue and reserve functions, and a wide variety of report capabilities. Merlin Consortium members receive support through NWLS, including training and troubleshooting.

In 2005, NWLS began supporting the Pharos Internet management system for libraries that choose to use it. Using III's Patron API module, Pharos users are able to automate Internet sign-up using the Merlin patron database to authenticate users.

NWLS provides complete support for a wide variety of software and hardware, including ordering, set-up and installation, maintenance, and training. Member libraries pay for their hardware and software. NWLS staff costs are primarily borne by the system, but the Merlin Consortium pays a share of staff costs for network administration.

All but two of the 28 NWLS member libraries belong to the Merlin wide-area network (WAN). The LCO College Community Library and the Bad River Public Tribal Library are served by the tribal networks. Merlin WAN members receive subsidized high-speed data circuits through the state TEACH program. The WAN is managed by system staff for the benefit of member libraries. This is an ongoing activity with no end date. In addition, NWLS provides e-mail, antivirus, security, and web hosting services.

NWLS provides its members a variety of other technology-based services. These include:

- Access to Ancestry Library Edition (genealogy).
- Electronic and downloadable audio, eBooks, music and videos through OverDrive. NWLS is a member of the Wisconsin Public Library Consortium, through which it provides these services.
- Resource sharing through WISCAT in addition to Merlin.

## **Planning Environment**

This plan was drafted by Office Manager Linda Stobbe, Network Administrator Mike Sauvola, Assistant Director Mike Sheehan, and Director Sherry Machones. All are staff members of Northern Waters Library Service.

## **Goals, Objectives and Activities**

### **Goal 1: Support NWLS library technology**

**Objective:** To provide quick, efficient technical support to member libraries

**Activities:**

1. Provide sufficient training to NWLS staff to allow them to adequately train and support member library staff
2. Provide technical assistance to member library staff for services outlined in the NWLS Plan of Service
3. Utilize remote access software for diagnosis and repair of problems at libraries on the WAN
4. Use e-mail, the NWLS web site, and other appropriate technologies to provide technical support
5. Provide opportunities for member library staff to evaluate technical support

### **Goal 2: Evaluate and implement new information technology for improved and more efficient services for patrons**

**Objective 2a:** To ensure that NWLS technology and telecommunications equipment is current and meets the needs of member libraries

**Activities:**

1. Monitor developments in library information technology and consult with member library staff in choosing which to implement
2. Assist member libraries in acquiring adequate bandwidth for NWLS and member libraries to meet growing demand
3. Work with member libraries on the installation, implementation, and budgeting for new technology

**Objective 2b:** To continue development of the NWLS website

**Activities:**

1. Update the website regularly
2. Seek feedback for improvements from member library staff
3. Provide free web hosting space to member libraries

**Objective 2c:** To provide consulting service to member libraries

**Activities:**

1. Assist member libraries in:
  - a. Planning automation projects
  - b. Utilizing Internet and other information technology
  - c. Working with community partners to maintain and improve local telecommunications infrastructure and multi-party cooperation
2. Support the technology aspects of NWLS activities in the annual NWLS Plan of Service

**Goal 3: Improve resource sharing within NWLS and between NWLS and other state and regional libraries and library agencies through the use of information technology**

**Objective 3a:** To maintain and expand NWLS and member library resource sharing activities

**Activities:**

1. Support technology necessary to carry out the interlibrary loan and reference and referral elements of the NWLS Plan of Service
2. Explore opportunities to develop new projects for sharing between NWLS member libraries and other partners

**Objective 3b:** To expand patron use of Merlin

**Activities:**

1. Promote the use of Merlin by library patrons
2. Train school staff and other groups to use Merlin

**Objective 3c:** To participate in statewide and regional resource sharing activities

**Activities:**

1. Work with state and regional libraries and library agencies to develop new resource sharing projects
2. Participate in Wisconsin Public Library Consortium services

**Goal 4: Improve the use of information technology for training and technical assistance for staff**

**Objective 4a:** To provide training in information technology for member libraries

**Activities:**

1. Provide training for library staff
2. Provide training workshops
3. Work with member libraries to provide patron training in the use of information technology

**Objective 4b:** To maintain and improve NWLS information technology infrastructure

**Activities:**

1. Follow the NWLS equipment replacement schedule
2. Add new infrastructure as appropriate

**Goal 5: Continue development of Merlin**

**Objective 5a:** To improve the usability of Merlin

**Activities:**

1. Install Merlin software enhancements
2. Send NWLS representatives to Innovative Users Group meetings
3. Customize the Merlin OPAC and add new capabilities for patrons

**Objective 5b:** To plan for the future of Merlin

**Activities:**

1. Evaluate new information technologies for possible application to Merlin operations and implement them in consultation with member library staff
2. Encourage expansion of Merlin through the addition of new members
3. Review and update Merlin Long-Range Plan annually.

**Goal 6: Maintain the infrastructure, hardware, and software support necessary for member libraries to provide a comprehensive program of technology-based services**

**Objective:** To provide a complete program of information technology services

**Activities:**

1. Manage licensing, addressing, and email service
2. Provide centrally controlled antivirus, adware, and spyware protection for member libraries
3. Use remote troubleshooting and repair software to provide cost-effective technical support to member libraries
4. Provide on-site infrastructure, hardware, and software support as stated in the NWLS Technology Policy.
5. Explore and, in consultation with member library staff, implement new infrastructure, hardware, and software
6. Provide NWLS libraries with software and technical support, repair, and testing services for WAN connections
7. Evaluate the need for equipment upgrades including: servers, routers, switches, workstations, and other WAN/LAN equipment
8. Work with the member libraries to implement the necessary upgrades of servers, routers, switches, workstations, and other WAN/LAN equipment
9. Work with the member libraries to monitor bandwidth usage to ensure adequate bandwidth for member library services.
- 10.

**Budget**

The following 2013 budget information provides an example of the revenue that NWLS will use and the expenditures that NWLS will make to accomplish the technology and resource sharing activities described in this plan.

**2016 Budgeted Income by Source**

2016 State Aid	\$529,104
----------------	-----------

Federal LSTA	\$59,021
Merlin Consortium and member libraries	\$218,628
Member Counties	\$201,282
Total Income	<u>\$1,021,520</u>

The majority of activities contained in this plan are financed from the NWLS Interlibrary Loan, Merlin and Technology, E-Content and Cooperative Cataloging programs. The Merlin program includes activities involved in operating the Merlin shared automated system. The 2016 budget and detailed information for all technology related programs follow.

### NWLS Technology Services 2016 Budget

	Interlibrary Loan & Reference	Technology / Merlin	E-Content	Cooperative Cataloging	Total
Salaries	\$ 15,627	\$ 166,885	\$ 3,615	\$ 20,611	\$ 206,738
Benefits	\$ 5,992	\$ 63,989	\$ 1,386	\$ 7,903	\$ 79,270
Library Contracts & Reimbursement	\$ 31,261				\$ 31,261
Internet Service Provider		\$ 10,000			\$ 10,000
BadgerNet T-1 lines		\$ 42,000			\$ 42,000
Telecommunications	\$ 166	\$ 3,096		\$ 664	\$ 3,926
Supplies	\$ 207	\$ 346		\$ 138	\$ 691
Postage	\$ 88				\$ 88
Travel	\$ 637	\$ 10,503		\$ 3,639	\$ 14,779
Building Maintenance Expense	\$ 2,442	\$ 2,116		\$ 2,442	\$ 7,000
Office Equipment Maintenance	\$ 150	\$ 300		\$ 195	\$ 645
Reference and ILL Databases	\$ 3,000				\$ 3,000
Automation Software		\$ 57,636			\$ 57,636
Outsource Catalog Main.				\$ 5,100	\$ 5,100
WPLC membership			\$ 4,000		\$ 4,000
Ancestry Library Edition			\$ 6,795		\$ 6,795
Digital Buying Pool			\$ 46,578		\$ 46,578
Novelist			\$ 5,775		\$ 5,775
Insurance		\$ 2,000			\$ 2,000
	\$ 59,569	\$ 358,871	\$ 68,149	\$ 40,691	\$ 521,507

Salaries, Payroll Taxes, Fringe Benefits: Included are the costs for 3.85 FTEs. Currently six employees spend time on these programs.

### Position FTE NWLS Technology and Resource Sharing Programs

Database Manager	1 FTE
Network Administrator	1 FTE
Network Assistant	1 FTE
Circulation Coordinator	.5 FTE
Director	.05 FTE
Interlibrary Loan Librarian	.30FTE

Building Maintenance: 43% of building maintenance is allocated to NWLS technology and resource sharing programs.

Library Contracts and Reimbursement: The cost of the resource library contract is allocated to these programs.

Internet Service Provider: The cost of WiscNet Internet service is charged to these programs.

BadgerNet T-1 Lines: The cost of all T-1 lines for all libraries on the NWLS WAN are charged to these programs.

Telecommunications: This budget contains the costs for telephone and cell phone service used by technology staff.

Supplies: This includes everything from paper to print cartridges.

Postage: The cost of postage related to interlibrary loan and reference, Merlin, Technology and Cooperative Cataloging are included here.

Travel: The cost of NWLS staff travel related to technology and resource-sharing programs is included.

Office Equipment Maintenance: The costs associated with these programs for the service agreement for office equipment.

Reference and ILL Databases: The costs to provide Wiscat to NWLS member libraries and their patrons are included here.

Automation Software: The cost of the maintenance agreement with Innovative Interfaces for automation software is included here.

Insurance: A prorated share of insurance costs for the NWLS building is assessed to technology and resource sharing programs.

## **Evaluation**

Evaluation of the plan is the responsibility of the NWLS Director. Input from member library staff and from NWLS teams with responsibility for implementing specific aspects of the plan will be considered as a part of the evaluation process.

The evaluation report will be made annually to the NWLS Board of Trustees as part of the system planning process. It will include progress toward goals, a list of goals not achieved and why they have not been achieved, and suggestions for achieving the goals in the future. Also included will be an assessment on the outcomes of the plan and any recommended changes to the plan.



**Appendix A**

**Member Library Support and Services  
Based on Data from 2015 Annual Report Data**

<b>Member Library Support and Expenditures</b>					
	<b>2015 Population Estimates</b>	<b>Municipal /Tribal/ County Support</b>	<b>Municipal Support/ Capita</b>	<b>Total Operating Expenditures</b>	<b>Operating Expenditures /Capita</b>
Ashland	8,103	778,231	96.04	530,187	65.43
Bayfield	481	162,823	338.51	156,451	325.26
Boulder Junction	946	89,099	94.18	83,740	88.52
Cable	1,077	164,798	153.02	102,338	95.02
Drummond	425	59,497	139.99	59,497	139.99
Eagle River	12,970	213,787	16.48	213,787	16.48
Grantsburg	1,335	129,757	97.20	119,418	89.45
Hayward	2,345	418,191	178.33	396,664	169.15
Hurley	1,516	122,366	80.72	122,023	80.49
Iron River	1,162	105,543	90.83	105,543	90.83
Lac du Flambeau	3,466	154,598	44.60	139,086	40.13
Lac Courte Oreilles	2,150	167,839	78.06	167,839	78.06
Land O'Lakes	871	162,111	186.12	149,470	171.61
LaPointe	269	251,305	934.22	165,646	615.78
Manitowish Waters	583	156,562	268.55	114,323	196.09
Mellen	719	72,791	101.24	72,791	101.24
Mercer	1,438	145,429	101.13	129,715	90.21
Odanah	1,096	22,469	20.50	22,469	20.50
Phelps	1,238	95,776	77.36	70,400	56.87
Presque Isle	632	102,906	162.83	102,906	162.83
Sayner	496	112,008	541.10	94,107	454.62
Shell Lake	1,359	144,317	106.19	142,917	105.16
Spooner	2,621	256,534	97.88	255,902	97.64
Superior	27,251	1,778,971	65.28	1,417,335	52.01
Washburn	2,084	170,781	81.95	169,672	81.42
Webster	655	112,520	171.79	108,197	165.19
Winchester	388	61,391	158.22	24,635	63.49
Winter	1,286	89,054	70.23	76,138	60.05

**Member Library Support and Services**  
Based on Data from 2015 Annual Report Data

Member Library Circulation and Interlibrary Loan

	<b>2015 Population Estimates</b>	<b>Total Circulation</b>	<b>Circulation / Capita</b>	<b>ILL Items Loaned</b>	<b>ILL Loaned / Capita</b>	<b>ILL Items Borrowed</b>	<b>ILL Items Borrowed / Capita</b>
Ashland	8,103	119,303	14.72	16,880	2.08	17,495	2.16
Bayfield	481	36,436	75.75	6,758	14.05	4,505	9.37
Boulder Junction	946	20,368	21.53	3,910	4.13	3,464	3.66
Cable	1,077	18,542	17.22	3,752	3.48	4,163	3.87
Drummond	425	7,484	17.61	1,652	3.89	1,743	4.10
Eagle River	12,970	53,236	4.10	7,846	0.60	10,931	0.84
Grantsburg	1,335	41,050	30.75	4,108	3.08	7,759	5.81
Hayward	2,345	102,882	43.87	13,610	5.80	18,419	7.85
Hurley	1,516	15,040	9.92	1,971	1.30	7,000	4.62
Iron River	1,162	47,190	40.61	8,239	7.09	9,178	7.90
Lac du Flambeau	3,466	7,000	2.02	100	0.03	100	0.03
Lac Courte Oreilles	2,150	8,186	3.81	3,581	1.67	467	0.22
Land O'Lakes	871	26,694	30.65	5,488	6.30	4,089	4.69
LaPointe	269	8,182	30.42	1,791	6.66	1,953	7.26
Manitowish Waters	583	19,615	33.64	5,288	9.07	2,244	3.85
Mellen	719	17,767	24.71	3,297	4.59	2,552	3.55
Mercer	1,438	19,210	13.36	4,561	3.17	1,607	1.12
Odanah	1,096	900	0.82	123	0.11	6	0.01
Phelps	1,238	23,942	19.34	4,418	3.57	3,151	2.55
Presque Isle	632	11,547	18.27	4,104	6.49	2,287	3.62
Sayner	496	20,376	41.08	4,852	9.78	2,120	4.27
Shell Lake	1,359	46,863	34.48	7,271	5.35	10,043	7.39
Spooner	2,621	100,739	38.44	10,568	4.03	15,051	5.74
Superior	27,251	293,906	10.79	36,443	1.34	27,218	1.00
Washburn	2,084	44,336	21.27	6,596	3.17	7,438	3.57
Webster	655	45,602	69.62	5,556	8.48	6,449	9.85
Winchester	388	2,061	5.31	714	1.84	251	0.65
Winter	1,286	15,747	12.24	2,558	1.99	3,701	2.88

## Member Library Support and Services

Based on Data from 2015 Annual Reports

### Member Library Visits and Program Attendance

	<b>2015 Population Estimates</b>	<b>Public Internet Computer Use</b>	<b>Computer Use / Capita</b>	<b>Program Attendance</b>	<b>Attendance / Capita</b>
Ashland	8,103	16,646	2.05	4,791	0.59
Bayfield	481	*		2,385	4.96
Boulder Junction	946	2,687	2.84	1,466	1.55
Cable	1,077	1,631	1.51	651	0.60
Drummond	425	*		169	0.40
Eagle River	12,970	9,821	0.76	2,580	0.20
Grantsburg	1,335	2,952	2.21	5,324	3.99
Hayward	2,345	9,285	3.96	2,801	1.19
Hurley	1,516	*		384	0.25
Iron River	1,162	5,112	4.40	93	0.08
Lac du Flambeau	3,466	4,000	1.15	0	-
Lac Courte Oreilles	2,150	12,600	5.86	361	0.17
Land O'Lakes	871	2,766	3.18	1,826	2.10
LaPointe	269	*		1,433	5.33
Manitowish Waters	583	1,204	2.07	714	1.22
Mellen	719	1,431	1.99	2,005	2.79
Mercer	1,438	3,894	2.71	1,274	0.89
Odanah	1,096	*		17	0.02
Phelps	1,238	*		741	0.60
Presque Isle	632	1,826	2.89	1,389	2.20
Sayner	496	1,611	3.25	803	1.62
Shell Lake	1,359	4,437	3.26	1,411	1.04
Spooner	2,621	9,614	3.67	3,577	1.36
Superior	27,251	25,996	0.95	7,188	0.26
Washburn	2,084	6,430	3.09	1,390	0.67
Webster	655	9,840	15.02	2,207	3.37
Winchester	388	268	0.69	157	0.40
Winter	1,286	2,760	2.15	1,971	1.53

\*Did not collect

**Race for Northern Waters Library Service Area**

	<b>Total Population</b>	<b>White Alone</b>	<b>Black Alone</b>	<b>Native American</b>	<b>Asian Alone</b>	<b>Hispanic</b>
Ashland County	15,843	13,340	48	1,790	63	380
Bayfield County	14,977	12,895	90	1,528	60	225
Burnett County	15,159	13,916	106	728	61	243
Douglas County	43,601	40,549	480	872	392	610
Iron County	5,794	5,632	6	521	17	6
Sawyer County	16,376	12,872	98	2,817	66	344
Vilas County	21,387	18,500	43	2,417	86	406
Washburn County	15,552	14,961	31	218	78	249
<b>Total NWLS Area</b>	<b>148,689</b>	<b>132,664</b>	<b>901</b>	<b>10,890</b>	<b>823</b>	<b>2,463</b>
Wisconsin Total	5,771,337	5,067,234	380,908	63,485	150,055	375,137
Comparison	2.58%	2.62%	0.24%	17.15%	0.55%	0.66%

<https://www.census.gov/quickfacts/table/RHI125214/55>

**NWLS Area School District Enrollment and Free/Reduced Lunch Counts**

<http://dpi.wi.gov/sites/default/files/imce/erate/pdf/Public%20Library%20NSLP%202014-15.pdf>

<b>School District</b>	<b>Enrollment</b>	<b>Free/Reduced Lunch Counts</b>	<b>% Free/Reduced Lunch</b>
Ashland	2,176	1,307	60.06%
Bayfield	387	387	100.00%
Drummond	393	232	59.03%
Grantsburg	1,402	449	32.03%
Hayward	2,046	1,110	54.25%
Hurley	623	301	48.31%
Lac du Flambeau	489	489	100.00%
Maple	1,389	538	38.73%
Mellen	282	145	51.42%
Mercer	144	91	63.19%
North Lakeland	161	79	49.07%
Northland Pines	1,333	584	43.81%
Northwood	357	193	54.06%
Phelps	127	69	54.33%
Shell Lake	674	380	56.38%
Siren	470	271	57.66%
Solon Springs	265	130	49.06%
South Shore	153	74	48.37%
Spoooner	1,300	668	51.38%
Superior	4,677	2,213	47.32%
Washburn	540	221	40.93%
Webster	684	499	72.95%
Winter	269	152	56.51%
<b>NWLS Total</b>	<b>20,341</b>	<b>10,582</b>	<b>52.02%</b>
<b>Wisconsin Total</b>	<b>870,512</b>	<b>266,334</b>	<b>30.60%</b>

Approved by the NWLS Board of Trustees: September 17, 2016