



Manistee County Board of Commissioners
Manistee County Courthouse • 415 Third Street • Manistee, Michigan 49660

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**MANISTEE COUNTY
GREEN TEAM/RECYCLING COMMITTEE**

Thursday, March 23, 2017
9:00 A.M.

Manistee County Courthouse & Government Center
Board of Commissioners Meeting Room

AGENDA

- 1) Sarah Archer - P.A. 69 Recycling Update (APPENDIX A)
- 2) Schedule Green Team Meetings for 2017 (APPENDIX B)
- 3) Other Items From Committee Members
- 4) Adjournment

APPENDIX A

**Manistee County Green Team
Recycling Program Report – March 23, 2017
Sarah Archer, Iris Waste Diversion Specialists, Inc.**

The following is a summary of Recycling Program activity since November 17, 2016

Meeting Attendance

- Green Team – November 17, 2016
- Conservation District HHW Committee, Ludington – December 2, 2016
- Conservation District HHW Committee, Ludington – February 7, 2017
- Michigan Recycling Coalition NW Lower MI Regional Outreach Meeting, Cheboygan – Feb 21
- Networks Northwest Solid Waste Advisory Committee, Traverse City – March 17
- Manistee Chapter Michigan Townships Association – March 22

2016 Year End Volume Report

532,860 pounds of recyclable materials were collected in 2016, down from 577,103 pounds in 2015, an 8% reduction. (January – December Volume Data Report attached)

Totals by site are as follows:

Recycling Drop-off Site	Pounds
Arcadia Township Hall	139,534
Betsie Valley School (January – March)	26,130
Brown Township Hall	67,977
Kaleva	74,361
Onkama Township Hall	185,069
Springdale Township (April – December)	65,919

Additionally, 562.71 tons of cardboard was collected in the Packaging Corporation of America trailers to the benefit of the following schools and school programs:

School/School Program	Tons
Betsie Valley Elementary	40.48
Manistee Catholic Central	307.36
Brethren SEEDS (Began April 2016 at Kaleva recycling drop-off site)	46.06
Onkama Band Boosters	97.06
Wellston Elementary	71.75

Current Volume Report

Total weight (pounds) of materials collected from 5 recycling drop-off sites.

January	39,340	April		July		October	
February	30,660	May		August		November	
March		June		September		December	
Total To-Date							70,000

- Volume through February was down from the same period in 2016 by 14%.
- Program costs through February are \$782.42 lower than the same period in 2016.

Education

- Monthly e-newsletters sent
- Website updates have been a challenge. Recycling Coordinator is unable to access backend of website and web updates submitted to webmaster are not being made in a timely manner.
- Message Centers at all recycling sites have been cleaned and information updated with current business sponsors.

Operations

- A new site monitor was hired in February for the Kaleva location due to the resignation of the previous site monitor in January.

Regional Resource Recovery (3R) Project

- Inaugural Meeting was held December 20, 2016 at Crystal Mountain with 17 in attendance. The meeting notes are attached.
- The next meeting will be held on March 21, 2017 at the Manistee County Road Commission from 1:00 - 3:00 pm. The meeting agenda is attached.

Other

- 2016 Household Hazardous Waste Results (Summary attached)
 - 344 cars representing 539 households
 - 19,686 pounds of household hazardous waste, pharmaceuticals, pesticides and motor oil
 - 868 pounds of household batteries
 - 7,625 pounds of electronics
- Michigan Recycling Coalition – www.michiganrecycles.org
 - NW Lower MI Regional Outreach Meeting – Conference Call 12-16-16
 - MRC Annual Conference – Kellogg Center, MSU East Lansing – May 17-19. Registration is now open. Conference program can be found on the MRC website. An advocacy day will occur on the first day of the conference. The MRC will be a key driver of advocating for local support of forthcoming legislation.
- Networks Northwest Solid Waste Advisory Committee
 - 2017 Meetings will be held quarterly from 1:00 – 3:00 pm on March 17, June 16, September 15 and December 15
 - Draft minutes of the December meeting are attached.
- Governor's Recycling Initiative Update
 - Governor's Recycling Council – Diverse group of industry leaders, appointed by the Governor to submit recommendations for new actions to achieve Governor Snyder's 30% recycling rate. (GRC One-Pager attached)
 - Solid Waste and Sustainability Advisory Panel (SWSAP) – Tasked to review Part 115, Solid Waste Management of the Natural Resources and Conservation Act with an eye on waste as a resource and thereby increasing options for materials management such as waste reduction, reuse, recycling, composting, and anaerobic digestion. (SWSAP One-Pager attached)
 - The recommendations of the GRC and SWSAP will be publically released by the Michigan Department of Environmental Quality on March 27 and the legislative process will begin. It is anticipated the legislation will impact solid waste management planning.

JANUARY	LBS	% Change from Previous Month
Arcadia Twp	8,589.0	5%
Brown Twp	5,738.0	5%
Maple Grove Twp	6,609.0	31%
Onekama Twp	14,481.0	27%
Springdale Twp	3,923.0	6%
JANUARY TOTALS	39,340.0	-28%
FEBRUARY		
Arcadia Twp	6,019.0	-30%
Brown Twp	4,593.0	-20%
Maple Grove Twp	5,881.0	-11%
Onekama Twp	10,979.0	-24%
Springdale Twp	3,188.0	-19%
FEBRUARY TOTALS	30,660.0	-22%
MARCH		
Arcadia Twp		
Brown Twp		
Maple Grove Twp		
Onekama Twp		
Springdale Twp		
MARCH TOTALS		
APRIL		
Arcadia Twp		
Brown Twp		
Maple Grove Twp		
Onekama Twp		
Springdale Twp		
APRIL TOTALS		
MAY		
Arcadia Twp		
Brown Twp		
Maple Grove Twp		
Onekama Twp		
Springdale Twp		
MAY TOTALS		
JUNE		
Arcadia Twp		
Brown Twp		
Maple Grove Twp		
Onekama Twp		
Springdale Twp		
JUNE TOTALS		

JULY	LBS	% Change from Previous Month
Arcadia Twp		
Brown Twp		
Maple Grove Twp		
Onekama Twp		
Springdale Twp		
JULY TOTAL		
AUGUST		
Arcadia Twp		
Brown Twp		
Maple Grove Twp		
Onekama Twp		
Springdale Twp		
AUGUST TOTAL		
SEPTEMBER		
Arcadia Twp		
Brown Twp		
Maple Grove Twp		
Onekama Twp		
Springdale Twp		
SEPTEMBER TOTAL		
OCTOBER		
Arcadia Twp		
Springdale Twp		
Brown Twp		
Maple Grove Twp		
Onekama Twp		
OCTOBER TOTAL		
NOVEMBER		
Arcadia Twp		
Brown Twp		
Maple Grove Twp		
Onekama Twp		
Springdale Twp		
NOVEMBER TOTAL		
DECEMBER		
Arcadia Twp		
Brown Twp		
Maple Grove Twp		
Onekama Twp		
Springdale Twp		
DECEMBER TOTAL		

YEAR TO DATE (in lbs.)	70,000.0
YEAR TO DATE (tons)	35.0

Year to date comparison by site

Totals in pounds	Feb-16	Feb-17
Arcadia Twp	7,906.0	6,019.0
Brown Twp	8,127.0	4,593.0
Maple Grove Twp	5,440.0	5,881.0
Onekama Twp	4,465.0	10,979.0
Springdale Twp	10,822.0	3,188.0
Totals in pounds	36,760.0	30,660.0

Totals in tons	Feb-16	Feb-17
Arcadia Twp	4.0	3.0
Brown Twp	4.1	2.3
Maple Grove Twp	2.7	2.9
Onekama Twp	2.2	5.5
Springdale Twp	5.4	1.6
Totals in Tons	18.4	15.3

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JANUARY	LBS	% Change from Previous Month
Arcadia Twp	7,568.0	-25%
Betsie Valley	10,010.0	-6%
Brown Twp	6,741.0	3%
Maple Grove Twp	6,440.0	-54%
Onekama Twp	14,261.0	7%
JANUARY TOTALS	45,020.0	-18%
FEBRUARY		
Arcadia Twp	7,906.0	4%
Betsie Valley	8,127.0	-19%
Brown Twp	5,440.0	-19%
Maple Grove Twp	4,465.0	-31%
Onekama Twp	10,822.0	-24%
FEBRUARY TOTALS	36,760.0	-18%
MARCH		
Arcadia Twp	9,257.0	17%
Betsie Valley	7,993.0	-2%
Brown Twp	5,617.0	3%
Maple Grove Twp	5,505.0	23%
Onekama Twp	13,708.0	27%
MARCH TOTALS	42,080.0	14%
APRIL		
Arcadia Twp	8,150.0	-12%
Brown Twp	4,845.0	-14%
Maple Grove Twp	5,117.0	-7%
Onekama Twp	12,041.0	-12%
Springdale Twp	5,307.0	-34%
APRIL TOTALS	35,460.0	-16%
MAY		
Arcadia Twp	13,953.0	71%
Brown Twp	6,094.0	26%
Maple Grove Twp	7,028.0	37%
Onekama Twp	17,696.0	47%
Springdale Twp	3,849.0	-27%
MAY TOTALS	48,620.0	37%
JUNE		
Arcadia Twp	12,060.0	-14%
Brown Twp	4,247.0	-30%
Maple Grove Twp	5,229.0	-26%
Onekama Twp	14,800.0	-16%
Springdale Twp	3,264.0	-15%
JUNE TOTALS	39,600.0	-19%

JULY	LBS	% Change from Previous Month
Arcadia Twp	13,462.0	12%
Brown Twp	6,460.0	52%
Maple Grove Twp	8,443.0	61%
Onekama Twp	16,696.0	13%
Springdale Twp	4,639.0	42%
JULY TOTAL	49,700.0	26%
AUGUST		
Arcadia Twp	22,338.3	66%
Brown Twp	6,175.0	-4%
Maple Grove Twp	8,945.0	6%
Onekama Twp	25,972.7	56%
Springdale Twp	6,849.0	48%
AUGUST TOTAL	70,280.0	41%
SEPTEMBER		
Arcadia Twp	13,087.1	-41%
Brown Twp	5,849.0	-5%
Maple Grove Twp	5,869.0	-34%
Onekama Twp	17,245.9	-34%
Springdale Twp	3,349.0	-51%
SEPTEMBER TOTAL	45,400.0	-35%
OCTOBER		
Arcadia Twp	12,027.0	-8%
Brown Twp	4,889.0	-16%
Maple Grove Twp	4,942.0	-16%
Onekama Twp	14,605.0	-15%
Springdale Twp	4,017.0	20%
OCTOBER TOTAL	40,480.0	-11%
NOVEMBER		
Arcadia Twp	11,687.0	-3%
Brown Twp	6,146.0	26%
Maple Grove Twp	7,316.0	48%
Onekama Twp	15,826.0	8%
Springdale Twp	4,825.0	20%
NOVEMBER TOTAL	45,800.0	13%
DECEMBER		
Arcadia Twp	8,039.0	-31%
Brown Twp	5,474.0	-11%
Maple Grove Twp	5,062.0	-31%
Onekama Twp	11,395.0	-28%
Springdale Twp	3,690.0	-24%
DECEMBER TOTAL	33,660.0	-27%

YEAR TO DATE (in lbs.)	532,860.0
YEAR TO DATE (tons)	266.4

Year to date comparison by site

Totals in pounds	Jan-Dec 2015	Jan-Dec 2016
Arcadia Twp	129,065.0	139,534.4
Brown Twp	63,098.0	67,977.0
Maple Grove Twp	96,066.0	74,361.0
Onekama Twp	170,502.0	185,068.6
Springdale Twp	118,372.0	65,919.0
Totals in pounds	577,103.0	532,860.0

Totals in tons	Jan-Dec 2015	Jan-Dec 2016
Arcadia Twp	64.5	69.8
Brown Twp	31.5	34.0
Maple Grove Twp	48.0	37.2
Onekama Twp	85.3	92.5
Springdale Twp	59.2	33.0
Totals in Tons	288.6	266.4

**Regional Resource Recovery Project
Inaugural Project Team Meeting**

Tuesday, December 20, 2016

1:00 - 3:00 p.m.

Crystal Mountain Resort – Arctic Bay Conference Room
12500 Crystal Mountain Drive, Thompsonville, MI 49683

Agenda

1:00 pm - Introductions and Expectations

1:15pm - Meeting Objectives

- Project Overview
- Project Team Structure
- Meeting Schedule

1:30 pm - Project Overview – Sarah Archer

- Goals
- Outcomes
- Timeline

1:45 pm - A Regional Approach to Resource Recovery –

Matt Flechter, MDEQ Recycling Market Development Specialist

2:15 pm - Project Team Structure – Tim Ervin

- Roles and expectations
- Identify Co-Chairs

2:45 pm - Meeting Schedule

3:00 pm - Adjourn

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**Regional Resource Recovery Project
Team Meeting**

Bringing the Pieces Together

Tuesday, March 21, 2017

1:00 - 3:00 p.m.

Manistee County Road Commission Conference Room
8946 Chippewa Hwy (US-31), Bear Lake, MI 49614

Agenda

1:00 pm – Welcome & Introductions

1:15pm – What the Data Tells Us

1:30 pm – Understanding the Flow of Materials

1:45 pm – Regional Assets Inventory

3:00 pm – Adjourn

HOUSEHOLD HAZARDOUS WASTE DISPOSAL MANISTEE COUNTY 2016				
TOWNSHIPS/VILLAGES	# CARS	# H.HOLDS	Funds Requested*	Funds Received
Arcadia Township	9	13	\$200	\$225
Bear Lake Township	28	67	\$450	\$450
Brown Township	8	12	\$250	\$250
Cleon Township	4	5	\$250	\$250
Dickson Township	4	6	\$325	\$325
Filer Township	16	24	\$745	\$750
Manistee Township	59	104	\$1,143	\$1,150
Maple Grove Township	3	7	\$275	\$275
Marilla Township	6	10	\$125	\$125
Norman Township	5	8	\$500	\$500
Onekama Township	28	36	\$275	\$300
Pleaston Township	15	29	\$250	\$275
Springdale Township	6	6	\$250	\$250
Stronach Township	3	12	\$250	\$275
Village of Bear Lake	in twp #s		\$90	\$100
Village of Copemish			\$65	\$75
Village of East Lake	1	4	\$165	
Village of Kaleva	8	11	\$150	\$150
Village of Onekama	in twp #s		\$150	\$150
City of Manistee	in twp #s		\$1,990	\$2,000
Manistee County (unidentified)	141	185	\$7,000	\$7,000
TOTAL (gov't entities inc. county)	344	539	\$14,898	\$14,875

*Twp, cities & villages request based on .32 per capita - M-LCD may have out of date info

Freon Charges Collected	\$0.00
Donations from individuals	\$1,019.35
Recycled auto batteries	\$0.00
Total Funds Collected in Manistee County	\$15,894

MANISTEE COUNTY COLLECTION TOTALS (Pounds)

Household Hazardous Waste (\$0.70/lb)	14,769
Controlled Pharmaceuticals	not available
Non-controlled pharmaceuticals (includes sharps) (\$0.70 / lb)	90
Pesticides (Clean Sweep - \$2.65 / lb)	950
Oil (\$0.70/lb - recycled)	3,877
Auto Batteries (recycled)	not available
Household Batteries (recycled)	868
Electronics/Appliances (recycled)	7,625
Total Pounds	28,179

Solid Waste Advisory Committee Meeting
Friday, December 16th, 2016 at 2:00 PM
Networks Northwest

600 E. Front Street, Conference Room 2
Traverse City, MI 49686

MINUTES

Members Present

Elisa Seltzer
David Schaffer
Eric Lind
Sherry Blaszak
Brian Burke
Matt Flechter

Staff Present

Tad Erickson

I. Welcome and Introductions

Group members briefly introduced themselves and the organizations they represent.

II. Review Proposed Agenda

Tad E. briefly previewed the agenda for the group.

III. New Business

A. 2017 Meeting Schedule

Members present discussed and developed the following tentative SWAC meeting schedule for 2017:

- Friday, March 17th 2017
- Friday, June 16th 2017
- Friday, September 15th 2017

Members directed Tad E. to send a Doodle poll out to the rest of the group with these dates to determine if these dates will work for the larger group.

B. MRC Fall Intro Recycling Update

C. Backyard Burn Ban Refresher/PSA plan renewed?

- a. Develop Public Service Announcement
- b. MSU could potentially write up a PSA for group.
- c. David S. shared the value he has found in forging relationship's with law enforcement regarding Backyard Burn enforcement.

D. Ag Plastics Recycling

- a. 3 Million Lbs./Yr
- b. Its often burned

- c. Abby Edens runs pesticide Recycling Programs
- d. MN Superbags
- e. Andy Hale, Dr. Shrink was mentioned as an organization to contact regarding best practices regarding plastics recycling

E. MI Recycling Coalition (Regional group formed)

- a. 3 RRR Group, Focused on:
 - i. Regional Economic Development
 - ii. Circular Economy
 - iii. Sustainability

F. MRC Spring Conference

- a. May 17-19 in East Lansing

IV. Local Program Updates

a. Leelanau

- i. Elmwood Township, \$13k facility
- ii. \$28k to Cedar Township for facility
- iii. Boathouse @ (spl?) harbor (food rescue program)
 - 1. Turkey and pigs
 - 2. Recycling/mulching program
- iv. TC food rescue

b. Benzie

- i. Potentially updating Solid Waste Plan (14 member task force, 2 yr process)
- ii. Transfer Station

c. Missaukee

- i. Implementing Trash Bag system (\$5)
- ii. Conservation Districts is considering formalizing its trash management program for County

V. Public Comment

No members of the public were present

VI. Next Meeting

Friday March 17th, 2017 (Tentative, pending doodle poll)

VII. Adjourn

The meeting adjourned early at 3:30pm (due to wintry weather conditions)

Governor's Recycling Council:

Recommendations to Double Michigan's Recycling Rate

A-10

What is the GRC?

The purpose of the Governor's Recycling Council is to advise the Governor and the Michigan Department of Environmental Quality on implementing the Governor's Residential Recycling Plan and other related issues so that the state will achieve a 30% municipal solid waste recycling rate within 2 years. The GRC is comprised of nine industry experts, named by Governor Rick Snyder, with knowledge and experience in implementing recycling best practices.

What is the GRC's vision for Michigan's recycling future?

The GRC envisions Michigan's 21st century recycling as a powerful engine, integrated into Michigan's economic and environmental systems. Families and businesses alike conveniently and confidently take part in this vital flow of materials with recycling and composting bins found in every kitchen, at every workstation, in lunch rooms, at ball fields – everywhere! Recycle carts at the curb are the norm, and haulers and sorters spur financial activity as they prepare the collected metals, plastics and paper for market. Even the big “stuff” in our lives like mattresses and old furniture as well as difficult stuff like paints and plant pots have a home in this dynamic and robust recycling economy. Michigan manufacturers benefit from this circular economy with unparalleled security of supply and lower costs for energy and toxicity-control using these pre-refined materials. In turn, brand owners and retailers satisfy customers with affordable, sustainable products that meet consumer demand for recycled-content goods and packaging. Meanwhile, balanced management allows Michigan's beloved forests and waters to return to their historic grandeur, a pure outdoor playground for residents and tourists alike, from adventure seekers on the slopes or on the waves, to hunters and fishermen and wildlife photographers. Michigan's 21st century Recycling Economy provides a comprehensive, convenient and cost effective driver for sustainable materials management that grows jobs and protects resources in the state, allowing all who work and play here to easily participate in the process of beneficial resource savings.

What are some of the GRC's main recommendations?

The Governor's Recycling Council (GRC) has developed the following recommendations to double Michigan's recycling rate. There are five key components: 1) Committing to rigorous progress measurement towards clear performance goals, 2) Mobilizing a statewide education and engagement campaign identifying what materials can be recycled, where and how 3) Authorizing a Michigan Recycling Market Development Initiative to grow Michigan's domestic use of recyclable materials in our industry, commerce and infrastructure 4) Creating a system for convenient universal access for recycling across the state with a network of curbside and drop-off recycling in urban, suburban, exurban and rural areas. 5) Establishing a Michigan Recycling Improvement Fund to fund recycling initiatives. These recommendations address actions that are necessary in the context of a long term strategy. As well, these recommendations identify specific implementation pathways: Legislative, Administrative, Engagement, Public/Private Partnerships, State Funding, Local and Private Funding. The recommendations outline anticipated costs and benefits and the economic business case for Michigan in taking our recycling rate to the next level of performance.

What does this all mean for.....?

Local Governments: When implemented, these recommendations will provide additional tools for local governments, in partnership with private recycling service providers, to establish recycling collection systems using industry best practices. Valuable materials will remain circulating in our local economies, creating economic opportunities and stronger communities.

Individual Residents: More recycling opportunities will be available to residents at home and on-the-go.

Businesses: By returning Michigan to a leadership position in recycling, businesses will realize additional options for managing waste. Additionally, more recycled materials will be available to Michigan manufacturers. These materials will better meet the quantity and quality specifications manufacturers need.

What do we need YOU to do?

As legislation is developed with assistance from DEQ and GRC members, it will be extremely important for representatives from a variety of interest groups and sectors to not only support the recommendations of the GRC, but to help share outreach materials within your organization, encourage legislators to adopt the legislation, and continuing to keep up with the progress of the development of this process.

For more information, including the GRC report, updates, timelines, and more,

visit: www.michigan.gov/MIrecycles

Volume to Value: SWSAP recommendations to Michigan's solid waste laws

What is the SWSAP?

The SWSAP is an advisory panel to the Department of Environmental Quality consisting of representatives of wide-ranging interests throughout Michigan, including environmental groups, local governments, business and industry, consulting firms, and academia. Over the past year, they have taken a comprehensive look at Michigan's current solid waste laws. The goal was to determine ways to more effectively drive sustainable management of waste and end of life materials, rather than just disposal.

Why do we need to change the solid waste laws?

Currently, solid waste is regulated by Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act. While these laws are not bad or ineffective, they can be a bit out-of-date. Although they promote beneficial use of some materials for construction, agriculture, and industry and have created state-of-the-art landfills, it is relatively silent on promoting other materials management options such as waste reduction, recycling, composting, and anaerobic digestion. The SWSAP is hoping to shift the focus of the laws to recognize solid waste as a resource that promotes economic vitality, ecological integrity, and improved quality of life.

What are some of the SWSAP's main recommendations?

The SWSAP focused on revamping the county solid waste planning process, creating a level playing field by increasing regulatory oversight for materials management options such as recycling and composting, fortifying financial assurance and post-closure provisions, and ensuring adequate funding for state and local implementation of responsibilities. In addition to these focuses, SWSAP recommendations also complement and are complemented by the recommendations of the Governor's Recycling Council, which aims to increase the recycling rate statewide. For the full SWSAP report, visit www.michigan.gov/deqswsap.

What does this all mean for.....?

- **Local Governments:** Less focus on requirements to ensure disposal capacity, site landfills, and manage import/export of waste. Fewer resources needed for materials management facilities like composting sites and materials recovery facilities. Increased economic growth due to the establishment of recycling and compost facilities within communities.
- **Individual Residents:** SWSAP recommendations promote development and expansion of recycling opportunities, leading to more job opportunities and a stronger economy. The increased oversight of materials management activities can also lead to decreased occurrences of nuisances.
- **Businesses:** Better planning for waste and materials utilization helps business achieve recycling and zero-landfill goals, helping with public perception in terms of corporate responsibility. Helps ensure a reliable supply of recyclable materials for manufacturing. Freer markets with the deletion of restrictive import/export provisions in materials management planning and minimum disposal capacity requirements. A more level playing field for businesses interested in investing in waste utilization facilities, equipment, and technology.
- **Environmental Programs:** SWSAP recommendations should complement regulatory requirements under air and water programs.

What do we need YOU to do?

As legislation is developed by Legislative Services Bureau with assistance from DEQ and SWSAP panel members, it will be extremely important for representatives from a variety of interest groups and sectors to not only support the recommendations of the SWSAP, but to help share outreach materials within your organization, encourage legislators to adopt the legislation, and continuing to keep up with the progress of the development of this process.

For more information, including the SWSAP report, updates, timelines, and more, visit:

www.michigan.gov/deqswsap



2017

APPENDIX B

January						
Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

February						
Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

March						
Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

April						
Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

May						
Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

June						
Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

July						
Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

August						
Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

September						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

October						
Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

November						
Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

December						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						