

# 2014

## Solid Waste Report



Prepared by:  
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# Flathead County Solid Waste District 2014 Solid Waste Report



The Flathead County Solid Waste District was created by the Flathead County Commissioners on December 2, 1968 by Resolution 78.

The seven member Board consists of representatives from the Cities of Kalispell, Whitefish and Columbia Falls, two Members-at-Large, an appointed member of the City /County Health Board and a County Commissioner.

## **Flathead County Solid Waste District Board Members**

Greg Acton, City of Whitefish; Susan Nicosia, City of Columbia Falls; Hank Olson, City of Kalispell; Wayne Miller, Board of Health; John Helton, Member-at-Large; Alan Ruby, Member-at-Large; and Gary Krueger, County Commissioner.

## **Mission Statement**

The Board of Directors and the employees of the Flathead County Solid Waste District provide environmentally sound and cost-effective refuse collection, disposal and recycling opportunities for Flathead County residents and businesses. Our facilities are a major part of the economic and environmental infrastructure of Flathead County. Long range planning and fiscal integrity ensures decades of capacity with minimal financial impacts to Flathead County citizens.

## **Contact Information**

The Flathead County Solid Waste District is comprised of a central landfill and nine transfer sites.

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## **Web Site**

<http://flathead.mt.gov/waste/>

## Personnel

The District ended FY14 with a staff of 18.75 full time equivalent employees: 5.25 county matrix and 13.5 union employees. The only change in staffing occurred with the replacement of the weekend gatehouse attendant who retired. The District continues to utilize both the weekend driver (30 hours per week) and the part-time Columbia Falls container site monitor in a “call-in” capacity which continues to reduce overtime costs.

Employee training and safety continues as a high priority. In addition to annual hazardous waste training, monthly safety meetings were held covering a wide range of topics including: asbestos, FMLA training and operational issues, landfill odors, slips/trips/falls, working in extreme weather, harassment, hearing conservation, MSDS, hazardous materials, load checking and personal protective equipment. The District also provided audiogram screenings and respirator fit tests.



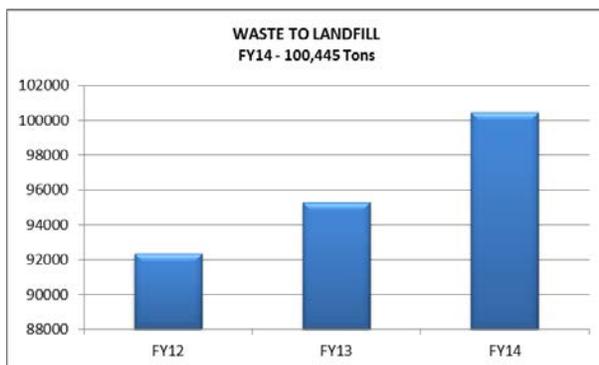
Landfill Office



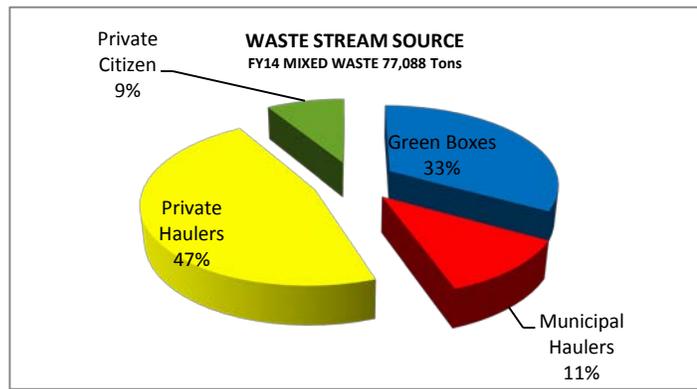
Landfill Entrance and Ancillary Buildings

## Landfill Operations

Total tonnage disposed of at the Flathead County landfill between July 1, 2013 and June 30, 2014 was 100,445 tons, an increase of 5.42% over FY13.



The primary components of the waste stream included mixed waste and construction debris. In FY14, 77,088 tons of mixed waste was landfilled, of which 47% was disposed of by commercial haulers, 11% by municipal haulers, 9% by private citizens and 33% hauled by FCSW from the container sites.

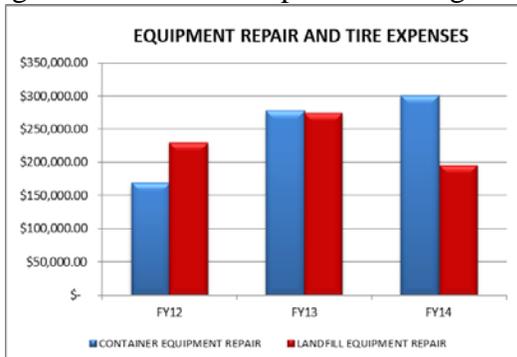


Construction debris comprised 16% of the waste stream with 19,246 tons disposed of in FY14. Brush was landfilled from July-March until a disposal source could be found for the chipped material. In June the District entered into a biomass fuel purchase agreement with Stoltze Lumber paying the District \$12.00 per ton for the material. There was 841 tons of brush diverted and chipped from April-June. There were 8,761 tires removed and disposed of by a private tire landfill at a cost to the District of \$13,660. Batteries (574), oil (8,023 gallons), and anti-freeze (710 gallons) were all accepted for recycling. Refrigerators (1,976) and other appliances (4,497) contributed to the 640.50 tons of white goods which were baled and removed. The District received revenue totaling \$119,680 from batteries (\$2,840), oil (\$7,551) and white goods (\$109,289).



## Equipment

Equipment capital purchases in FY14 were a Fuel System (\$18,397), 2015 Peterbilt garbage truck (\$260,527), 826H rebuild (\$56,423.56), 2004 garbage truck rebuild (\$17,219) and a 2007 boom truck rebuild (\$13,187). Repair costs for landfill equipment were down 28% while container equipment increased 9% from FY13. The increase in container equipment was due to a greater number of costly repairs to aging equipment which the District anticipates will decrease with the addition of the new garbage truck and another purchase budgeted in FY15.



## Landfill Facilities



Approximately 275 acres have been permitted for waste management activities with the completion of the South Area Landfill Expansion Project. The North Area Landfill consists of 105 acres and is the current operating area. The South Area Expansion encompasses the remaining area owned by Flathead County and was approved for disposal operations by the Montana Department of Environmental Quality (DEQ) in the spring of 2006. The south area landfill has 18.1 million cubic yards of available airspace. The first lined cell was approved for use in 2002 by the DEQ. Two subsequent

liner projects (Phase II-A and Phase III) have been constructed and approved for disposal activities by the DEQ. Construction of Phase IV-A was completed and became the active working cell in August, 2011. Disposal activities continued in Phase IV-A through the fiscal year. The North Area Landfill has approximately 3,020,000 million cubic yards of gross capacity remaining at the end of FY14. This is additional airspace over the previous engineering estimate of 2.91 million cubic yards and was calculated when the finish survey of Phase IV-B was completed.

The District utilized approximately 165,780 cubic yards of airspace during the fiscal year. The site effective density was calculated to be 1,212 lbs/cubic yard. This number represents the total waste deposited in the landfill divided by the gross airspace utilized (refuse and cover soil). The goal established for the site as set by the Board of Directors was 900 lbs/cubic yard. In FY14 30,875 cubic yards of soil were utilized for the Phase IV cover operations. This translated to a refuse to soil ratio of 4.3:1 for the year. The site is balanced at a 3:1 ratio so the utilization of gross airspace was exceptional.

Land use issues are one of three items the County Commissioners have retained for decision making. The Strategic Plan prepared by the District provided for a 100 year disposal capacity goal for the County. The Commissioners decided in FY14 to purchase 14 properties located in the southwest corner of the current landfill boundary. Eight properties were purchased in FY14 at a cost of \$2,014,121. The sellers have each entered into an agreement allowing them to remain on the property up to a maximum of 20 years or until 2033. The remaining capital expenditures were construction and engineering costs for the Phase IV-B liner expansion (\$311,011), 826H certified rebuild (\$56,424), completion of the permanent fencing on the former Flathead Wood Recycling property (\$13,650), fuel dispensing/monitoring system (\$18,397), and liner sand (\$595) to provide a protective barrier between the trash and the liner.



*Properties that are checked were purchased within the 2014 fiscal year*

## Landfill Gas System



The landfill gas system operated well throughout the period. Approximately 227,890,000 standard cubic feet (scf) of landfill gas were removed from the landfill and burned at the gas to energy facility. This facility, owned and operated by Flathead Electric Cooperative,



produces power from the landfill gas produced by decomposing refuse. Currently the system is producing about 1.1 megawatts daily or, on average, energy to power 1100 homes in Flathead County. The maximum energy output for the system is 1.6 megawatts which will occur in future years as the landfill grows and produces enough gas. No emissions from the system exceeded permit levels and no operating violations were received from the DEQ. The landfill is currently in excellent standing with the DEQ regarding both the operations of the solid waste license and the air quality permit.

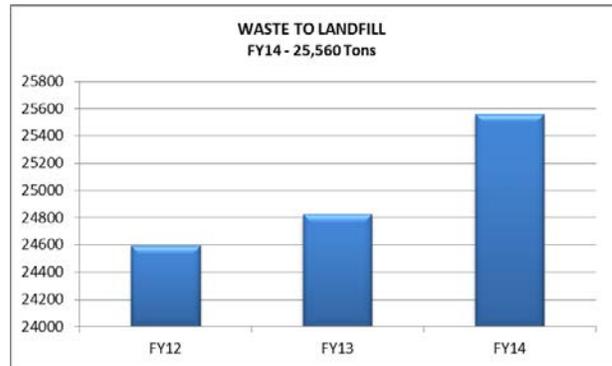


Corrective actions, required under the direction of the DEQ regarding the groundwater contamination from the “old” portion of the landfill, appear to be having the desired effects. The landfill gas extraction system, the up-gradient ground water diversion system and the surface water diversion system have decreased the levels of contaminate concentrations to acceptable levels at the relative point of compliance (groundwater monitoring wells at the sites perimeter). The District continued to perform semi-annual groundwater monitoring through the fiscal year; however, contaminate concentrations (chlorinated solvents) in groundwater monitoring wells MW-3 and MW-6D have been trending upwards since the December 2011 monitoring event. Further investigation will be needed to revise the corrective action plan for the landfill.

The District completed two of three projects to mitigate surface water from infiltrating into the perched groundwater aquifer. The District diverted the surface water from Phase IV-A and IV-B down a HDPE lined ditch to the north storm water pond. Four shallow groundwater extraction wells were drilled in the northeast portion of the landfill to enhance the current perched groundwater cutoff system. After finding no water, these wells were not developed. The third project, replacing the liner in the north storm water pond, will be completed in FY15.

## Container Sites

Nine refuse drop off sites (Glacier Haven and Nyack were closed with the completion of the Essex/Red Rock site) serve residents throughout the County. A total of 25,560 tons was hauled from the container sites to the landfill by District trucks, an increase of 3% in tonnage compared to FY13. Abuse of the sites by commercial and out-of-county residents and disposal of hazardous material continues to be a problem at the unstaffed sites.

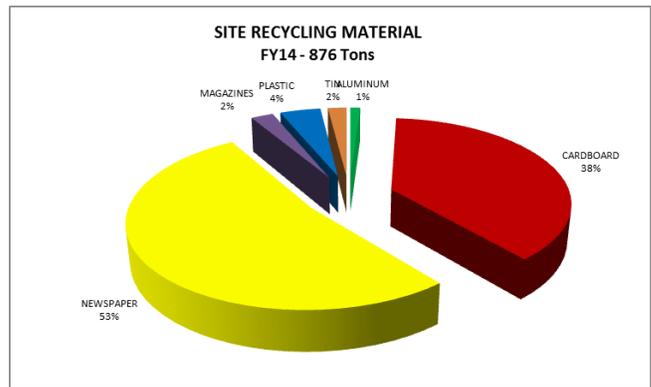


As the only staffed site, Columbia Falls continues to receive positive public response due to the cleanliness of the site, improved recycling and elimination of salvagers. The cardboard compactor has greatly increased hauling efficiency making the recycling of the material more cost effective for the District and improved public utilization by increasing storage capacity.

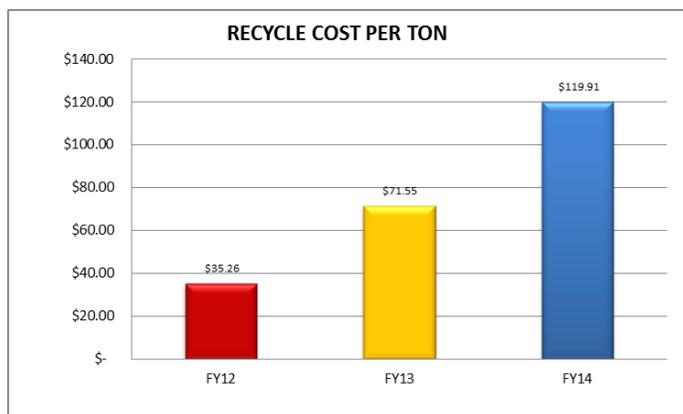


## Recycling Program

Valley Recycling continues to haul and process the recyclable materials collected at the drop-off sites on a one year contract while the District re-evaluates the future direction of the program. Current sites with recycling opportunities are: Ashley Lake, Bigfork, Coram, Columbia Falls, Creston, Somers, Lakeside and the landfill. Materials accepted are: plastics no. 1 & 2, cardboard, newspaper, office paper, shredded paper, magazines, tin and aluminum cans. The total amount of recycled material for the fiscal year for this program was 875 tons.

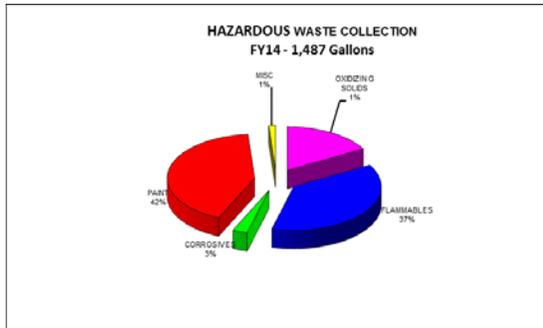


The District incurred \$179,492 in expenditures and received \$80,341 in revenue from the program for a cost of \$99,151 and a cost per ton of \$119.91. Increases in hauling and handling costs contributed to the greatest fiscal year loss in the program's 17 year history.



## Collection Events

The District continues to provide opportunities for residents and businesses to properly dispose of unwanted hazardous materials. The monthly Household Hazardous Waste collection accepted 1,487 gallons of materials from 188 Flathead County residents. Materials accepted include oil-based paints and stains, pesticides, herbicides, poisons, mercury and other common household chemicals. The District paid disposal costs of \$27,433 to an out-of-state hazardous waste firm to dispose of the materials.



The tenth annual Commercial Hazardous Waste Material Collection was held at the landfill in May. Fourteen registrants (schools, municipalities, contractors and businesses) disposed of 3.08 tons of material. Material disposed included: paint related materials; automotive fluids (fuel, oil and grease) and filters; chemicals; cleaners; batteries; aerosols; and lamps.

In 2014, 767 pounds of prescription drugs were collected in the permanent pharmaceutical collection receptacles located in the Justice Center in Kalispell (579.5 pounds), the Columbia Falls police station (95.7 pounds) and the Whitefish police station (91.8 pounds). This was reported to the State of Montana by the Flathead County Sheriff's Department and disposed of in the lined cell at the landfill.



The District provides a \$4000 grant annually to the Flathead County Health Department for the purchase of sharps containers which are provided to citizens throughout the county. These plastic sharps disposal containers are available at the landfill or at the Flathead County Health Department. Sharps can safely be disposed of during landfill hours of operation in the red Sharps Disposal bin located at the landfill.



## Refrigerator Decommissioning Program

The District continued to assist Flathead Electric Cooperative (FEC) with management of the Refrigerator Decommissioning Program. This energy efficiency measure was implemented by FEC in February 2012 as an incentive to encourage homeowners to recycle older working appliances and replace them with more energy efficient units. In FY14 District staff tested 136 units to determine eligibility for the \$50 FEC rebate.



## Junk Vehicle Program

The Flathead County Junk Vehicle Program is funded by a grant provided by the Montana Department of Environmental Quality and administered by the District. The grant is funded by a fee assessed on vehicle licenses and distributed to each county based on vehicle numbers. The FY14 grant of \$127,954.86 was utilized by the District to provide free pickup and removal of vehicles and to enforce the Montana Motor Vehicle Recycling and Disposal Act (75-10-501, MCA) in Flathead County. While higher metal prices continue to reduce the number of vehicles received by the District, 31 vehicles were retrieved and processed for crushing, significantly more than in FY13. The District also continues to process and inspect junk vehicle complaints throughout Flathead County in addition to inspecting all licensed wrecking facilities annually for compliance with all state statutes.



## Projects in Progress/Completed

### Olney Site

Construction of the new Olney site began in FY13 and was completed in September by LaSalle Sand & Gravel (\$214,507). The site was expanded and improved with bear proof fencing, more containers and scheduled hours of operation.



### Red Rocks Site (Essex)

Construction of the East Corridor container site was completed by Paveco, LLC in November with total FY14 costs of \$319,702 and the new Red Rock/Essex site was opened for seasonal use in May. Scheduled days and hours of operation determined by the Board are Sunday, Tuesday and Thursday from 9:00 AM to 6:00 PM from May (weather dependent) through January 5.



### Phase IV-B Liner Expansion

Sandry Construction was awarded the bid for construction of the Phase IV-B Liner Expansion for \$1,868,160 in May. Construction began in June when equipment and liner supplies were moved onsite and initial site and floor prep was started. The project is scheduled for completion in October 2014.



## North Pond Repair

LaSalle Sand and Gravel completed repair of the north pond in September at a cost of \$95,047.

The North Storm Water Pond repairs were necessary as the originally installed PVC liner had failed as a result of UV rays causing large tears in the liner. A new HDPE Liner was installed to insure storm water was not surcharging the perched water zone in this area of the landfill. This project should help mitigate the ongoing issues with ground water contamination.



## Fuel Dispensing/Monitoring System

A new fuel system, which was installed in June at a cost of \$18,397, provides better tracking and management of the fuel by recording each transaction by equipment and employee. In addition to eliminating the cost of repairs and upgrades to the previous system, it reduces fuel spills and costly clean-up costs.



## Roadside Litter Reduction Program

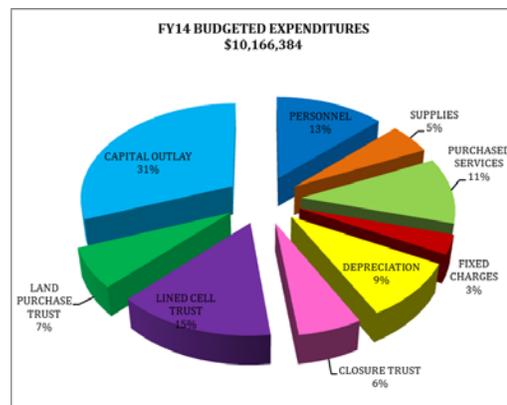
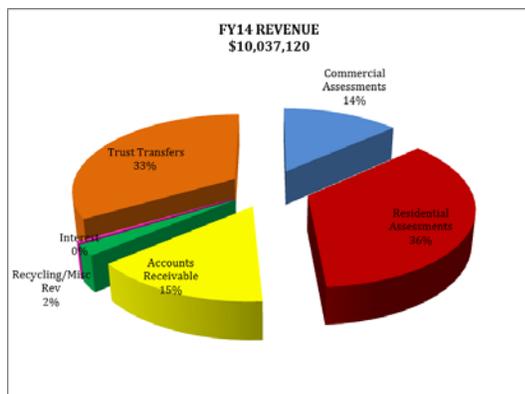
Flathead County Ordinance No. 8 requires loads to be secured or covered to prevent littering with fines associated with the ordinance up to \$200 per offense. The District continued the media campaign with a billboard located on Highway 93 South and newspaper and radio advertising to educate the public regarding the requirements to secure their load and to reflect the District's commitment to reducing roadside litter throughout Flathead County. The District appreciated the efforts of the Flathead County Sheriff's Department and Montana Highway Patrol to educate the public regarding the ordinance.



## Financial Summary

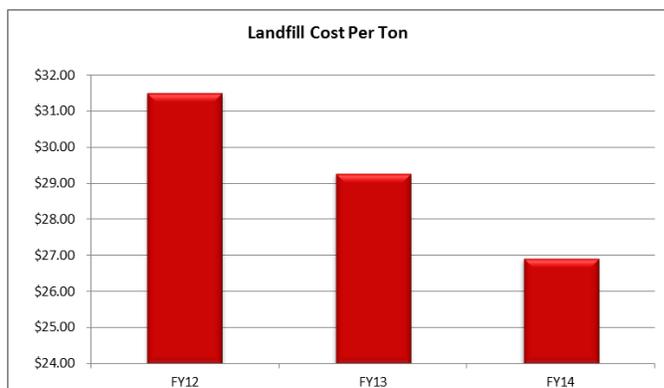
The Flathead County Solid Waste District, an enterprise fund, operates under a combination system of an annual assessment (\$80.73 per household) and a pay-as-you-throw (PAYT) tipping fee (\$31.05 per ton) for commercial customers. Businesses throughout the county are charged the annual assessment with a multiplier based upon the volume they produce and report to the District in a biennial volume study performed by the District. If information is not supplied by the business, the Flathead County Solid Waste District Board of Directors has determined a multiplier for the different types of businesses throughout the county.

District revenues are generated by refuse fees, tipping fees, sale of recycled commodities and interest earnings. Total District revenues for the year were \$10,037,120. Primary components were residential and commercial refuse assessments (\$4,914,504); tipping fees (\$1,503,877); white goods, battery and oil recycling (\$122,790); and blue bin recycling program (\$80,341). Investment earnings (\$36,500); transfers from the expansion (\$97,346) and land purchase (\$3,259,011) trust accounts and miscellaneous revenue make up the remainder of the revenue.



Operating fund cash balances at the end of the year were: \$5,530,751 (Operational Cash) and \$2,412,875 (Reserve for Equipment Replacement). Trust account balances were: \$8,347,271 (Closure/Post-Closure), \$8,888,188 (Liner Expansion) and \$300,352 (FEC Improvement/Gas-to-Energy project). The Landfill Property Acquisition trust account ended the year with a zero balance as a result of the \$2,014,121 spent acquiring eight neighboring landfill properties.

Expenditures for FY14 totaled \$8,070,665 which included trust transfers of \$1,480,073 (Liner Expansion); \$600,000 (Closure/Post-Closure); \$683,020 (Landfill Property Acquisition); and \$30,000 (FEC Improvement/Gas-to-Energy project). The District continued to provide a \$4,000 Sharps Disposal Grant to the Flathead City County Health Department for the purchase of sharps disposal containers. The landfill cost per ton for the year were \$26.94, down from FY13.



## **Goals for FY14**

The Board of Directors has created a set of goals to help define the direction of the District and provide a goal list for the Director to achieve during the coming fiscal year(s). The goals were broken down into duration categories to help further define the Districts direction.

The following goals were established by the FCSW Board in June 2011.

### **Annual Goals (Current Fiscal Year)**

1. Fiscal year report to summarize all District activities
2. Minimum landfill effective density 1,000 lbs/cy
3. Refuse truck average of 7+ tons/load from April thru Sept and 6.5+ tons/load Oct thru March
4. Overall annual review of District financial status
  - a. Residential/commercial assessment and gate fee review
5. Community Education
  - a. Continue Waste Not Grant, school tours, media releases, radio spots and litter reduction campaign
  - b. Continue household hazardous waste, electronic, pharmaceutical and commercial small quantity generator hazardous waste events
6. Employee Development and Safety Training
  - a. Professional development for management staff
  - b. Solid waste based monthly training for operational staff

### **Short Term Goals (2 years of less)**

1. Fulltime staffing at Coram, Somers and Creston container sites (as financially feasible with Commissioner approval)
2. Utilization of Class III/IV landfill area when construction volumes warrant
3. Strategic Plan implementation
  - a. Pursue purchase of land in southwest corner of south area landfill or property west of Prairie View Road
  - b. Container Site consolidation
    1. Bigfork and Lakeside elimination
    2. Purchase and construction of Highway 2E corridor site (Red Rocks Pit – Canyon area)
4. Landfill entrance improvements
  - a. Facility sign and regulatory signs at gate

### **Long Term Goals (more than 2 years)**

1. Strategic Plan Implementation
2. Increase aesthetics and buffering of container sites by use of screening, fencing, vegetation or soil berms wherever feasible
3. Weigh station scale house improvements and installation of outbound scale when necessary
4. Close District facilities (landfill & container sites) on all county recognized legal holidays and also close all facilities on Sundays