



Strategic Initiative	Status/Progress	Department
Automatic Vehicle Location System	The Division of Transportation (DOT) has begun use of an Automatic Vehicle Location (AVL) System to improve the operational efficiency of winter snow & ice control activities. In addition to recording the location, direction and speed that snow plows are traveling - the system is also sensor augmented to collect vehicle data, plow status and material spreader information. This information will be used to manage the use of de-icing materials and to continuously improve the effectiveness of the operations.	Transportation
Auto Shut-Off Technology	Beginning in FY18 new passenger vehicles are being procured by Lake County with Auto shut-off technology as a standard feature which automatically turns the vehicle off when idle and then turns it back on when the gas pedal is pressed. This new technology is being offered without a cost premium and will continue to be included in FY19 fleet additions. DOT will continue to work with the Sheriff's Office to determine the implementation of such technology within its fleet.	Transportation
Updated Pavement Maintenance Strategy	DOT has incorporated a new pavement maintenance strategy into Lake County's pavement preservation program. All new bituminous pavements are now being treated with a pavement rejuvenator when they are one to two years old. The pavement rejuvenator restores and extends the properties of the pavement surface and extends the life of the pavement by approximately five years.	Transportation
Bike Lanes	DOT will be adding 140 miles of "bicycle friendly" shoulders to existing county highway pavements with programmed resurfacing improvements over the next five years.	Transportation
Energy Audit:	As a part of the County's contract with the Sustainability Consultant, energy audits will be completed on several County facilities. To date, data review of energy consumption has been completed for five facilities – the administrative/court tower, the coroner's office, public defender's office, adult probation office, and the central permit facility. It is anticipated that a report on suggested energy savings measures for each facility will be complete in December. Through the County's Sustainability Consultant, the County is in communication with both ComEd and NorthShore Gas to prepare for rebate programs and other financial assistance they can provide when the County is ready to implement the energy reduction projects.	Facilities & Construction

Bird Safe Design Practices:	The Finance and Administrative Committee approved staff time to investigate bird friendly design applicability at County Facilities. This evaluation will begin soon.	Facilities & Construction
Cloud First Strategy:	The Information Technology Department (IT) continues its efforts to adopt Software as a Service (SaaS) models where available. SaaS allows the delivery of useful applications and products through the internet without a significant hardware commitment. These policies shift the focus away from County Data Centers thereby reducing energy consumption and enabling IT to remain cost effective and operationally flexible. Other cloud services can house new solutions that are not offered as SaaS. Ongoing efforts to consolidate and virtualize will reduce energy usage and promote efficiency in County data.	IT
Internet of Things Sensors:	IT is researching <i>Internet of Things</i> sensors and analytics to monitor and adjust water, sewer, building, fleet, traffic efficiency. The Internet of Things is a term which describes the networking of physical devices through the internet to make data-collection and monitoring simpler, like the County's current PASSAGE system. By collecting this data in real time and establishing a user interface for monitoring and interacting with it, County operations improve efficiency. Some potential beneficiaries include Public Works SCADA, DOT passage, DOT telematics, and Facilities.	IT
Enhanced Biological Nutrient Removal (eBNR)	The County's three wastewater plants now utilize Enhanced Nutrient Removal technology which reduces the volume of phosphorus and nitrogen in the treated water. This process protects the Des Plaines River, and downstream receptors, as high levels of phosphorus and nitrogen in water can lead to the growth of harmful algal blooms.	Public Works
Energy Consumption Studies	With the assistance of the County's Sustainability Consultant, the County secured two free energy audits - an estimated value of \$10,000 - through the Illinois EPA and the Illinois Department of Energy at two Wastewater Reclamation Facilities (New Century Town and Mill Creek). The audits will review and evaluate plant equipment to determine if there are opportunities for improved efficiency and energy reduction.	Public Works
Construction Debris Diversion Tracking through Tyler-Energov	<p>In 2017, the Planning Building and Development Department (PBD) conducted a pilot program to test the functionality and implementation of a new web-based system for online reporting and tracking of construction and demolition debris diversion. Anticipated benefits of the online system included increased convenience and time savings for both staff and customers, as well as improvements in tracking diversion rates and compliance. For six months, a select number of contractors participated in the testing of the new on-line reporting system while PBD continued to use the existing paper-based reporting system.</p> <p>Although it was anticipated that automation of debris tracking would result in increased efficiencies and convenience for both staff and customers, this was not supported by the data generated from the pilot program. Overwhelmingly, analysis of the data showed that utilization of the web-based system would result in increased time and money spent for both staff and customers.</p> <p>Further, it was determined that the limited benefits the web-based system had over the existing paper-based system could be realized through enhancement of the County's recently implemented permitting system (Tyler-Energov) at no extra cost. Consequently, the PBD has made the necessary enhancements to Tyler-Energov and is now tracking data through this system.</p>	PB&D

Updates to the Unified Development Ordinance:	Zoning text amendments to the Unified Development Ordinance (UDO) were drafted to support the implementation of the Sustainability Chapter of the Regional Framework Plan. The amendments aim to expand opportunities for local food production and promote the use of native plants. PB&D staff have recently completed an overview of the proposed amendments with the Planning, Building and Zoning Committee. At its August meeting, the County Board directed the Zoning Board of Appeals to initiate public hearings on the proposed amendments to be scheduled for mid-to-late Fall 2018.	PB&D
Solar Energy Task Force:	Staff from PBD are drafting a Solar Energy Task Force process to engage area municipalities on the shared development of a best practice-based solar model ordinance. The task force, which would include Lake County staff and representatives from municipalities throughout Lake County, is intended to develop an ordinance which could act as a template for both Lake County and municipalities to utilize in the adoption of solar specific codes. Staff are considering participation in the SolSmart certification program which recognizes cities, counties, and towns that foster the development of solar energy markets with a bronze, silver or gold designation.	PB&D
Lake Michigan Watershed-Based Plan:	Lake County Stormwater Management Commission (SMC) will begin development of the Lake Michigan Watershed-Based Plan, which will reduce the impact of water pollution and flood damage, and restore watershed lakes, streams, and wetlands. A \$100,000 grant from the Illinois Department of Natural Resources Coastal Management Program was awarded to SMC for this effort.	SMC
Fiddle Creek Improvements	Fiddle Creek Branch A is suffering from drainage problems and is causing flooding for residents. SMC is working with the Slocum Lake Drainage District and the Village of Lake Barrington to implement a drainage channel clearing project to alleviate residential flooding. In late May, SMC began the process by capturing footage of Fiddle Creek Branch A with a camera drone. With this footage, the team was able to identify obstructed areas. Work to clear obstructions will begin in the coming weeks and will be performed by an outside entity.	SMC
Des Plaines River Watershed-Based Plan:	SMC recently submitted the final version of the Des Plaines River Watershed-Based Plan to the Illinois Environmental Protection Agency. The plan was created to help stakeholders better understand the watershed and to identify what actions should be taken to improve water quality, enhance and protect natural resources, reduce flood damages, reduce runoff volume and pollution, and increase collaboration and awareness among watershed stakeholders. Plan adoption will be requested soon through the SMC and County Board.	SMC
Health Department Operations	The Lake County Health Department (LCHD) has reduced waste generated by its daily operations through reduced paper towel use with new dispensers, reduced the size of can-liners (some of which are paper), and switched to recycled, unbleached paper products. Additionally, LCHD's contract with its Housekeeping provider includes a clause requiring the use of specifically designated "green" chemicals and high-efficiency particulate air (HEPA) filtering equipment to improve air quality.	Health Department

Health Department Deicing Workshops	LCHD continues to co-sponsor Lake County’s annual Deicing Workshops. In 2018, the County recently received national recognition for work on snow and ice management. The workshops, which started in 2009, have trained over 1000 people from 231 different entities in both the public and private sectors. The curriculum includes information about the environmental impact of deicing products and how to store them safely.	Health Department
Surface Discharge Wastewater	As a part of its strategic plan, LCHD is reducing the percentage of surface discharge wastewater treatment systems that fail the fecal coliform effluent standard. Ensuring that wastewater discharge is clean protects Lake County waterways from contamination.	Health Department
LCC Food Waste Diversion:	The Lake County Sheriff’s Office – through Adult Corrections – began a food waste diversion program on August 14, 2018 that is anticipated to play a key role in the jail diverting nearly 70% of the waste stream from the landfill, compared to the current diversion rate of approximately 6%. Based on a waste assessment conducted by the County, its consultants, and Aramark in March 2018, the average amount of food scraps generated per inmate per day is 1.5 pounds. Food scraps compose approximately 55% of the waste generated. Working with its waste hauler, Advanced Disposal, the County is expected to save money on this project. Current costs for both landfilling and recycling are \$2,189 per month compared to the estimated cost of \$1,825 per month with the food scrap program and improved recycling. Components of the cost reduction include reduced collection of the large compactor to once every other week instead of once a week and an innovative textile recycling program in which old jail clothing and shoes will be recycling instead of landfilled.	Collaboration between Sheriff’s Office, SWALCO, and County Administrator’s Office
New Recycling Guidelines:	SWALCO, in conjunction with Lake County Communications, has developed new recycling and composting guidelines to combat the growing recycle-stream contamination issue. SWALCO’s Executive Director is the current co-chair of a statewide Recycling Contamination Task Force focused on simplifying and unifying recycling guidelines and implementing a statewide education campaign in Fall of 2019. The new recycling guidelines are already active in Round Lake Beach, in addition to a curbside cart tagging program to reduce contamination. The tagging program began in late July and during the first week nearly 50% of the recycling carts were tagged for contamination. The next week that number dropped to around 25% of the recycling carts as behavior changed once residents were alerted to improper recycling. Most carts were tagged for putting the recyclables in a plastic bag—recyclables should be kept loose. Later this Fall, the new recycling guidelines will be distributed across Lake County in anticipation of a Statewide campaign.	SWALCO