



**MCRA**  
**ANNUAL REPORT 2021**

**Dedicated to providing services, products and opportunities of value that offer enrichment to the community.**

## **Vision Statement**

Montgomery County Revenue Authority (MCRA) is committed to growing a sustainable network that:

- Is nationally, regionally and locally recognized for its offerings and performance.
- Is dedicated to achieving higher environmental standards.
- Continues to offer new and innovative programs and services for the benefit of the community and our team.

MCRA is committed to the following core values:

1. Genuine Smile
2. Do-Anything Attitude
3. Deliver Excellence

## **MCRA - OVERVIEW**

The Montgomery County Revenue Authority (MCRA), created in 1957, is an instrumentality of Montgomery County, Maryland and a public corporation. The MCRA was established to construct, improve, equip, furnish, maintain, acquire, operate, and finance projects devoted wholly or partially for public use, good, or general welfare. A six-member Board governs the MCRA, with five members appointed by the County Executive and confirmed by the County Council. The sixth member – the Chief Administrative Officer of Montgomery County or designee serves in a non-voting, *ex-officio* capacity.

The two primary activities of the MCRA are to operate self-supporting facilities and to finance public facilities. On the operations side, the MCRA manages its golf course system comprised of nine golf courses along with the Montgomery County Airpark. The operated facilities generate various forms of revenue, which are used to fund MCRA operations and to provide for facility improvements. A portion of the operating revenues are used to retire any debt associated with operated facilities.

On the public financing side, the MCRA issues bonds to raise capital, to acquire land or other property, or to pay construction costs for Montgomery County facilities. Through a financing partnership with a broad range of County agencies, the MCRA has supported important public purposes as far reaching as economic development, education, transportation, health and human services, recreation, and the arts. The agencies' lease payments are used by the MCRA to retire the debt obligations.

### **Montgomery County Revenue Authority – 2021 Highlights**

The Montgomery County Revenue Authority (MCRA) remained committed to its mission to grow through new initiatives and continued partnerships. The golf industry saw an increase in rounds of 5.5% nationally in 2021. Rounds of golf increased by 1.3% locally, according to industry data. The MCRA golf courses experienced an increase in rounds of 8.8%.

## MCRA Golf Initiatives

The MCRA's golf course system, operated under the flag of MCG, hosted 450,000 rounds in 2021 at its nine golf courses. This was an increase of approximately 42,000 rounds from the previous year. The following is a summary of the broad range of MCRA initiatives focused on the needs of the communities we serve. The increase in rounds as compared from the previous year was due to the demand for golf after re-opening from the pandemic.

Since the reopening of the courses on May 8, 2020, the courses continued increased sanitation practices and limited services within the clubhouses. Our operations continued to follow COVID guidelines from Montgomery County and CDC. To service customers under these restrictions numerous changes to our operations were made to ensure safety and sanitation measures:

- ✓ Technology was substantially increased for us to provide outside services
  - ✓ Credit card only transactions continued through the year
  - ✓ Sanitation procedures were implemented to the highest standards for golf carts, restrooms, and all customer "touch points"
  - ✓ Golf cart occupancy was reduced to 1 rider per cart for much of the summer
  - ✓ Tee time intervals continued to be set at 11-minute intervals to provide additional spacing of groups
  - ✓ All public access items on the course, such as water containers, ball washers, sand rakes, etc. were removed
  - ✓ All group clinics, outings, and leagues were cancelled.
- ***Community Assistance and Event Programs***
    - MCRA continued our commitment to the Salute Military Golf Association, which focuses on rehabilitating local wounded warriors through the game of golf. Clinics and reduced fees were offered throughout the year for members of this organization.
    - Montgomery County Public Schools brought back the school golf teams after a year off from the pandemic. Over 700 rounds of golf were donated to this program.
    - Sligo Creek Golf Course's "Music in the Park" continued this with record turnouts each Friday throughout the summer.
  - ***Family Golf***
    - MCRA continued with our popular Family Golf program, which is offered at all nine MCG courses throughout the summer. This program consisted of:
      - \$15 rates for all families offered Monday – Friday at any time at our 9-hole courses and after 5 pm on our main 18-hole courses. Weekend Family Golf rates were available after noon at our 9-hole courses and after 5 pm at the 18-hole courses.

- A “course within a course” is set up for juniors and new players to the game to make it much more fun and enjoyable, along with family friendly scorecards.
- ***FootGolf***
  - Northwest and Sligo Creek Golf Courses were the first FootGolf courses established in the DC Market in 2016.
  - FootGolf is a combination of soccer and golf whereby a player kicks a soccer ball and follows the rules of golf. This has proven to be a tremendous success at the two facilities.
  - In 2021 this program continued to grow. Many soccer leagues used the venues for fun outings as did numerous soccer enthusiasts
- ***MCG Academy***
  - The MCG Academy has continued with our 6-tiered program for lessons. We offer Golf 101 and 102 for beginners, 103 for beginners to learn how to play on the course, and 104 for golfers who are playing and would like to learn more in a group setting. Golf 201 and 202 are for private instruction and playing on the course lessons. These programs create an instructional plan for all levels of players.
  - 2021 resulted in tremendous increase in golf lessons and all camps were sold out. Due to the pandemic many people took up the game of golf due to its safe atmosphere of being an outside sport or pastime that could be enjoyed safely.
- ***Robust Junior Golf Programs***
  - All Junior and Summer camps were sold out in 2021
  - We continued our long-standing partnership with The First Tee of Greater Washington, DC, a program that uses golf to teach life skills to underprivileged kids. MCG Academy instructors host hundreds of juniors each session and added a program at Little Bennett in 2021. We currently have programs at Laytonsville, Needwood, Northwest and Sligo Creek, and Little Bennett.
- ***Golf Industry Supported Initiatives***
  - The MCG Academy has developed its own version of the Get Golf Ready class and created a more affordable and enjoyable opportunity to allow community members to give golf a try. These programs continued to grow in 2021 with many clinics sold out. Currently, these programs are hosted at Falls Road, Needwood, Northwest, and Little Bennett.
  - An estimated over 5,000 participants have taken advantage of this great program since its inception. We are continuing to grow these programs in number of participants year over year.

- ***Junior PGA Teams***

- MCG Junior Teams totaled 380 juniors who were involved in the 7-9, 10-13, and the 17U division. MCG Junior Teams played and competed at Needwood, Falls Road, Northwest, and Little Bennett. The MCG Academy continued to expand the program. MCG Junior Teams play a spring and fall division each year and the competition with a sense of team unity has created a truly enjoyable program for so many juniors.



- ***MCG Programs***

- Lesson programs were put into place that were safe and inviting.
- Our operational procedures changed substantially to continue to offer golf in a clean safe manner
- Tee time were adjusted to provide additional open space between groups
- We developed an outside “distance” no touch check-in procedure
- Carts were offered as single riders to increase the comfort and safe distance of players
- Our inside operations flexed with the many changes and updates to county/state pandemic mandates

## Agronomy and Environmental Stewardship at MCRA Golf Courses

MCRA golf courses remained committed to important environmental initiatives in 2021 and finished another year with great playing conditions in large part due to the maintenance practices that have been implemented over the years. Important agronomic strategies continued, and several projects were undertaken that will have long-term benefits to playability and the environment.

**Agronomy:** Among the key agronomic programs that allow our superintendents to deliver appealing playing surfaces while reducing pesticide and fertilizer use are:

- **Core aeration:** This is the most important of all cultural practices we perform. Core aeration, wherein plugs of turf, thatch, and underlying soil are removed, allows for increased root growth, improved air exchange to roots, and improved water infiltration, among a host of other benefits. When aeration is performed on greens, holes are usually backfilled with 100% sand, which keeps these important channels open for weeks or months for continued turf health benefits. The sand is of specific angularity and particle size to allow it to maintain surface firmness as well as permit the playing surface to “breathe.” While this procedure is temporarily disruptive for golfers, it is a significant reason why highly scrutinized playing surfaces can be maintained in such great condition.



**Topdressing:** Weekly or bi-weekly applications of light amounts of sand, brushed into the greens, go virtually unnoticed by golfers. This important process not only continues to maintain the surface firmness desired by our golfers, but also helps to dilute thatch and organic matter that naturally builds up as the turf grows. Minimizing the buildup of organic matter in soil is important because thatch holds moisture (increasing disease pressure) and is a habitat or food source for insect pests.



- **Rolling:** Lightweight (800-lb) dedicated, motorized rollers are used typically 3-5 times per week on greens and have been shown in numerous university research studies to reduce incidents of disease such as dollar spot (*Claviceps homeocarpa*), one of the diseases our greens are most prone to getting. Using these machines allows us to also increase green speed when necessary, as

well as smooth the playing surface. We continue to utilize this practice to eliminate mowing 2-3 days per week by simply rolling greens in the morning to prepare the greens for play; this practice not only reduces disease pressure but also reduces fuel emissions. On these days, we reduce by 75% the amount of fuel used to prepare greens for play.

- **Venting/Spiking:** Every 2-4 weeks throughout the year, superintendents will perform another important but minimally disruptive practice. Venting is usually performed with equipment that leaves very small (0.2 – 0.25 inch) holes throughout the green at 1.25-inch spacing. This machine rolls the turf smooth afterwards as well. Spiking is typically done with special units that fit on a greens mower and leave small slits in the green. This process is much faster, but since the slits will close more quickly it is typically beneficial for a shorter period of time. Both practices are still very important tools that can help dry out a wet green and/or provide oxygen to the upper root zone and make the turf healthier.



- **Soil Testing:** Without a well-balanced soil, many of our efforts to maintain great turf are wasted. By taking soil samples of individual greens, tees, fairways, or roughs, we are able to determine exactly what the grass needs. And we save a lot of labor, fuel, and resources by only targeting specific applications of nutrients or soil amendments like gypsum or compost where the soil tests dictate. Not only does the grass perform better at an “ideal” nutrient ratio but the soil will also more readily support a diverse microbiology and have improved

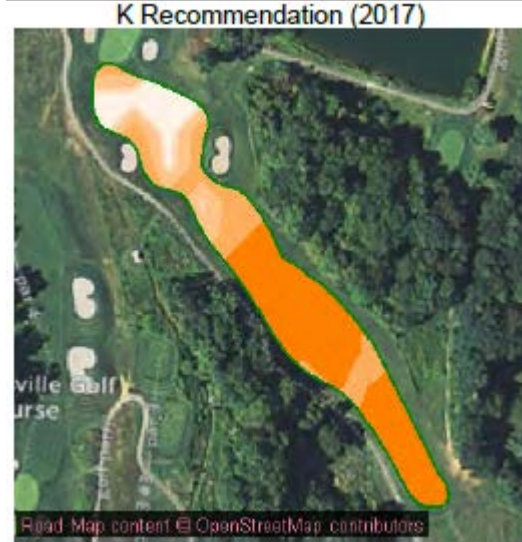
Total Exchange Capacity (M. E.)		4.86	4.01
pH of Soil Sample		6.80	6.60
Organic Matter, Percent		2.37	2.22
ANIONS	SULFUR: p.p.m.	13	14
	Mehlich III Phosphorous: lbs / acre	264	226
EXCHANGEABLE CATIONS	CALCIUM: Desired Value	661	544
	lbs / acre	644	498
	Deficit	-17	-46
	MAGNESIUM: Desired Value	100	100
	lbs / acre	100	82
	Deficit	-18	-18
POTASSIUM: Desired Value	100	100	
lbs / acre	82	71	
Deficit	-18	-29	
SODIUM: lbs / acre	52	50	

drainage properties. In 2016, we began to implement MLSN (Minimal Levels of Sustainable Nutrition) guidelines (<https://goo.gl/TzuOPI>), a sustainable approach to managing turfgrass nutrition developed by PACE Turf and the Asian Turfgrass Research Center after careful analysis of thousands of soil tests from around the world of healthy and unhealthy turf. We continued to successfully utilize this approach in 2021.

- **Soil texture mapping:** In late 2016, we began the process of using a Veris machine to map the texture of the soils of our fairways at all 9 courses using electrical conductivity. This process allows us to further reduce necessary fertilizer applications. The picture here is an example of the potassium recommendations for #6 fairway at Laytonsville. Areas lighter in color will not



need any potassium applied, so on this hole we would see about a 50%



reduction in that fertilizer. This picture also demonstrates the high variability of the soil around our properties, as well as our commitment to more precision turf management. After the soils are mapped, soil samples are taken from each similar zone in every fairway to provide a recommendation. Nutrient recommendations are given for P, K, Mg, Ca, S, Zn, Mn, Fe, Cu, and B, as do most standard soil tests. We can look at this data combined with MLSN guidelines to provide an innovative new way to further reduce nutrient use.

- **Water conservation:** One of the keys to managing healthy turf is to maintain control of the water (when Mother Nature allows). Keeping soils dry, especially in the spring and fall, makes the grass search for water by growing deep roots. Deep roots help turf survive better by more efficiently accessing water and nutrition that is available in the soil. Irrigation computers are set up to specifically water dry areas when necessary on a large scale using highly efficient sprinkler heads. On a smaller scale, such as greens, much of the water comes in the form of hand watering. Superintendents and their teams can apply water to specific areas that need it at a time when overhead sprinklers that are more general in coverage may give unnecessary water to a wetter part of a green, for example, that could result in rapid turf decline. Hand watering and judicious irrigation programming saves an estimated 10 – 20 million gallons of water each year at our nine golf courses.



- **Wetting agents** are also used at our facilities in an effort to reduce watering and improve the effectiveness of our irrigation practices. Wetting agents allow water to more readily and evenly infiltrate into the soil. This immediately reduces runoff during heavy rain events and allows water from irrigation (when needed) to reach the entire root system and keep plant health at ideal levels to tolerate traffic and weather stress. Wetting agents can be targeted with a hose on localized dry spots, applied to entire turf areas such as greens, tees, or fairways, or applied through the irrigation system for a broad, positive impact as soil

conditions dictate throughout the year. Rates are easily adjusted, and different chemistries are available that allow water to be held near the surface or penetrate deeper into varying soil types from sand to clay and everything in between.

- **Technology:** MCRA continued its use of tools that we now consider indispensable: TDR 300 and 350 Field Scout Soil Moisture Meters. These devices are located at every facility and allow the superintendents to instantly see moisture levels on a digital display. With this information, they can more accurately pinpoint areas that are deficient in water, or that are too wet.



This has enabled us to use even less water as we manage our greens, and by ensuring proper moisture levels (not too wet, not too dry) throughout the entire green, plant health is consistently better, and the grass requires fewer inputs in the way of pesticides or fertilizers.

- **Scouting:** As a part of our Integrated Pest Management (IPM) strategy, scouting the golf courses daily for dozens of insect and disease pests that can significantly damage turf is performed. One example of a pest that is causing significant turf damage in the Mid-Atlantic region is the Annual Bluegrass Weevil (ABW). The ABW has been a pest to the northern states such as Massachusetts and New York for many years and has now migrated south as far as North Carolina and adapted to the slightly warmer climate where it is difficult to control with as many as 4 generations throughout one growing season.



We spend a significant amount of time talking with university researchers and other experts about ideal control strategies that will allow us to minimize chemical inputs and maximize control of this pest. There are multiple methods to scout for the ABW. A “soap flush” with lemon scented dish soap is applied with water to host turf (primarily *Poa annua*) which makes the adults rise from cover to the tops of grass blades to be identified and counted. A “salt flush” is used other times of year to draw larvae from grass stems and is done by simply adding salt to a jar with water and adding a small turf plug and shaking. Cutting into the turf then pulling apart the thatch to identify larger, older larvae can also be done. There are other monitoring techniques such as vacuuming to identify ABW numbers and develop a control plan if needed. After scouting data is collected,

the turf manager will implement a control strategy to targeted areas, if needed, based on their findings. This is just one example of the lengths our teams go to monitor one of many insects and turf diseases that can impact playing conditions.

**Environment:** MCRA courses continue to work within the guidelines of the Audubon International Cooperative Sanctuary Program for Golf Courses, as well as the Groundwater Guardian Greensite Program. These successful programs help manage green spaces such as golf courses, carry out safe groundwater practices against chemical use and pollution, and develop effective conservation and wildlife enhancement programs.

Poolesville, Little Bennett, Needwood, and Northwest golf courses have achieved Audubon International certification. Through the end of 2021, all MCRA golf courses continued to work toward achieving Audubon certification by completing requirements in the six focus areas of this program:

- Wildlife & Habitat Management
- Water Conservation
- Environmental Planning
- Water Quality Management
- Chemical Use Reduction & Safety
- Outreach and Education

**Projects:** In 2021, several important projects were completed at our golf courses....

- **Roof replacements** – The 1980’s-era roofs of the equipment storage building at Falls Road and the equipment manager’s shop at Laytonsville were replaced.
- **Bunker rebuilds** - Rebuilding of bunkers at 6 golf courses (Falls Road, Laytonsville, Poolesville, Rattlewood, Needwood, Northwest) helped ensure that these hazards continue to function for years to come. Over time, heavy rain events will begin to compromise the drainage systems in these bunkers, so each year we choose a manageable number of bunkers to install new drainage and sand to keep these bunkers functional for another 7-10 years.
- **Fairway drainage**– We addressed the most pressing drainage issues in several fairways around the system, at Poolesville (#2, 12, and 14), Hampshire Greens (#17), and Northwest (#13 & 17). By reducing the wet areas in these fairways, we not only improve our ability to continue routine maintenance activities, but also improve chances of turfgrass survival and the need for emergency applications of fungicides to keep the grass alive.
- **Tee levelling**– Select tee boxes at Rattlewood, Needwood, and Little Bennett were levelled to improve the playing experience at these facilities. Over time, the filling of divots can result in “crowned” surfaces, and occasional resurfacing is warranted since most divots are taken in the middle of tees.
- **Driving range stall upgrade** – The grass area behind the driving range mats at Hampshire Greens, which was very difficult to keep alive due to the concentrated traffic, was replaced by pavers

- **Netting replacement** – sections of damaged netting at Falls Road were replaced to help ensure errant golf balls stay inside the property.
- **Portable greens fans** – large, trailer-mounted fans were purchased at Falls Road and Laytonsville. These fans will be used to help reduce summer stress on some of the “pocketed” greens at these courses. High temperatures and stagnant air can be a recipe for disaster on grass mown at 0.125”. A breeze of just 4 mph can make the difference in whether the grass survives the day or not. Pocketed greens have minimal wind and are the most challenging growing environment at our facilities.
- **Tee rebuilds** – A handful of poorly-built tee boxes at Laytonsville got a face lift. The existing surface was stripped and the top few inches roto-tilled and leveled before a higher quality turfgrass was installed. A combination of hybrid bermudagrass and bluegrass was used on the different tee boxes.
- **Storage bins** – Concrete blocks were used to build sand and gravel storage bins at Hampshire Greens to help contain these materials and reduce the need for storing them in the main parking lot.
- **Irrigation feed repair** – Sligo Creek is fed by 3 main water lines that come onto the property. One of them had failed, causing very poor irrigation pressure during the growing season on part of the golf course, so it was fixed.
- **Greens fan engine conversion** – An experiment to convert one of the gas-powered greens fans at Northwest to an electric motor run off of a more fuel-efficient and quieter generator, was successful in reducing fuel usage by 50%. Based on this, we plan on doing more conversions in the future.
- **Irrigation piping** – Replaced one of the exposed irrigation pipes at a bridge crossing at Northwest.
- **New irrigation heads** – Added sprinkler heads to provide irrigation coverage to areas on #1 and #16 at Needwood where focused golf cart traffic caused perennial turf loss or erosion. These areas were very commonly in play, so the ability to water the grass will improve the playing experience.
- **Tee signs** – tee signs were re-faced at Little Bennett.
- **Irrigation Pump & Motor Replacement** – Replaced failing, nearly 30-year-old pumps and motors that deliver water to the irrigation system. The new components are more energy efficient and will provide reliable water to the golf course for decades.

## Montgomery County Airpark

The Montgomery County Airpark (Airpark), acquired in 1960, is owned and operated by the MCRA through a 99-year lease dating back to 1959. The MCRA maintains sole control over 30 acres on the northwest end of the Airpark property and is exploring ideas on how to best develop that land. Currently, the MCRA subsidizes the annual operating losses for the benefit of the County and the community. The goal of this new development, and the revenue streams it would provide, is to make the Airpark self-sustaining.

As owner and federal grant sponsor, MCRA secures State and Federal funding for the Airpark and is responsible for the runways, taxiways, navigation aids, and other common areas. The fixed base operator (FBO) offers services to support aeronautical activities including fueling, aircraft storage, aircraft maintenance, flight training, and related services. Following the expiration of an 18-year lease with an aviation services company, the master leaseholder, doing business as DC Metro Aviation Services, became the fixed base operator (FBO). Since DC Metro Aviation Services took over as FBO, there have been vast improvements in both operations and facilities, including the construction of new hangars for aircraft storage and the addition of self-fueling service for pilots.

More than 140 aircraft are based at the property. Montgomery County Airpark's 4,200-foot runway has three instrument approaches and is the closest "jetport" to the Nation's Capital. A portion of the traffic is of the commercial type or air taxis consisting of a variety of modern-day aircraft such as Cessna Citation, Lear Jet, Beechcraft (both jet and turbine), and Falcon Jet. The Airpark is also home to an air taxi firm that specializes in transporting air travelers to various destinations in the east coast and the mid-west on a regular on-demand basis.

In 2016, the MCRA secured a \$5.477M FAA grant with a \$310k matching grant to refinish and relight the taxiway with LED lights at the Airpark. This is the first of a two-phase project. In 2018, a second grant for \$2.913M was acquired to finish the work. This project is now complete. The next stages of the Airport Capital Improvement Plan will focus on land acquisitions that will remove hazards to the navigable airspace. This will create a safer flight path for aircraft on approach to the runway. The property is set to be purchased in 2023 and closed in fiscal year 2024.

According to 2018 economic data supplied by the Maryland Aviation Administration, the Airpark provides the following direct, indirect, and induced benefits to Montgomery County:

- 193 jobs
- \$9,661,000 million in personal income
- \$5,753,000 million in business revenues
- \$1,468,000 million in tax revenues



## Financing Activities

Long-term sustainability continues to be a focus at the MCRA. A key strategy to attain this, in addition to constant attention to the operating budget, is an ongoing effort to reduce overall liabilities. In January of 2018, MCRA took advantage of a favorable interest rate environment to replace its interest rate swaps on a principal balance of \$17,168,000. This will save MCRA approximately \$32,000 per year in debt service payments through the remaining life of the bonds. Final maturity occurs in December of 2027.

In addition to its own debt, the MCRA carries more than \$60.6 million in debt related to projects around the County, which is not considered part of the County's debt service calculation.

Additional projects include:

- Bethesda North Conference Center
- Health and Human Services Building
- Germantown Indoor Swim Center and other County swim facilities
- Montgomery College Arts Center
- Montgomery College Silver Spring Parking Facility
- Goldenrod Building



Bethesda North Conference Center



Germantown Indoor Swim Center