"CANNABIS CULTIVATION AND YOUR WATER SYSTEM"

By Jacob Gardner

There's a new industry in New York State. Well... there's a new legal industry in New York State. The State of New York legalized the recreational use of cannabis in early 2021 and in late December of 2022 the first recreational marijuana dispensary in New York opened its doors to the public in New York City.

While the store front in NYC got a lot of attention, the growers that cultivate the cannabis did not. Over 250 cultivation operations have been approved by the state and this number will grow.

New York is no stranger to agriculture and many of you probably already have agriculture customers, so a new farming operation won't exactly be big news. But cannabis cultivation operations could look completely different from what you're used to and may have different needs than your average customer.

Cultivation operations are going to come in all shapes and sizes. There will be everything from full scale farms with traditional irrigation systems to science driven warehouses that budget for each drop of water. Some of the first 250 cultivation sites may already be growing cannabis products without THC and their transition will have no new impact, but many will be new agriculture operations. The different needs of cultivation customers may create the necessity for administrative changes. Getting ahead of the game and understanding the needs of your customers will allow you to better plan your operations.

While New York has legalized cannabis use and cultivation, the federal government has not. On the federal level, cannabis is still considered a Schedule One substance and financial institutions are forbidden from providing banking services to businesses that violate federal law. So, these clients will likely pay their water and wastewater bills in cash. While this isn't a huge problem, it will be necessary to make sure that your municipality has the mechanisms in place to accept potentially large cash payments. Cannabis cultivation is going to have an impact on water systems, and on water supplies.

One of the main ways in which cannabis cultivation can affect water supplies is through the sheer volume of water required to grow the plants. A single plant can need up to 5 gallons of water per day, according to some estimates. This can create a strain on water resources, especially in areas already facing water shortages or drought conditions. Many farms may operate on private wells, but problems could arise if you are both pulling from the same aquifer.

Another factor that can contribute to the impact of cannabis cultivation on water supplies is the use of chemicals and fertilizers. These substances can leach into the soil and contaminate water sources, especially if they are not properly managed. In some cases, the use of fertilizers can lead to the development of harmful algal blooms, which can have serious consequences for both human and environmental health.

Despite these potential negative impacts, there are also ways in which cannabis cultivation can be managed to minimize its impacts on water supplies. For example, cultivators can use drip irrigation systems, which apply water directly to the root zone of the plants, rather than flooding an entire field. This can help to conserve water and reduce the risk of runoff and erosion. Another option for cultivators is to capture and reuse water instead of relying on fresh water sources.

Cannabis cultivation can have both positive and negative impacts on municipal water systems and supplies. The industry has the potential to create jobs and generate revenue for communities, but it will be important to carefully manage water resources to minimize negative impacts. It will take education and communication for cultivators and communities to implement sustainable management practices. 💦💦💦

Jacob Gardner
Energy Efficiency Circuit Rider
gardner@nyruralwater.org