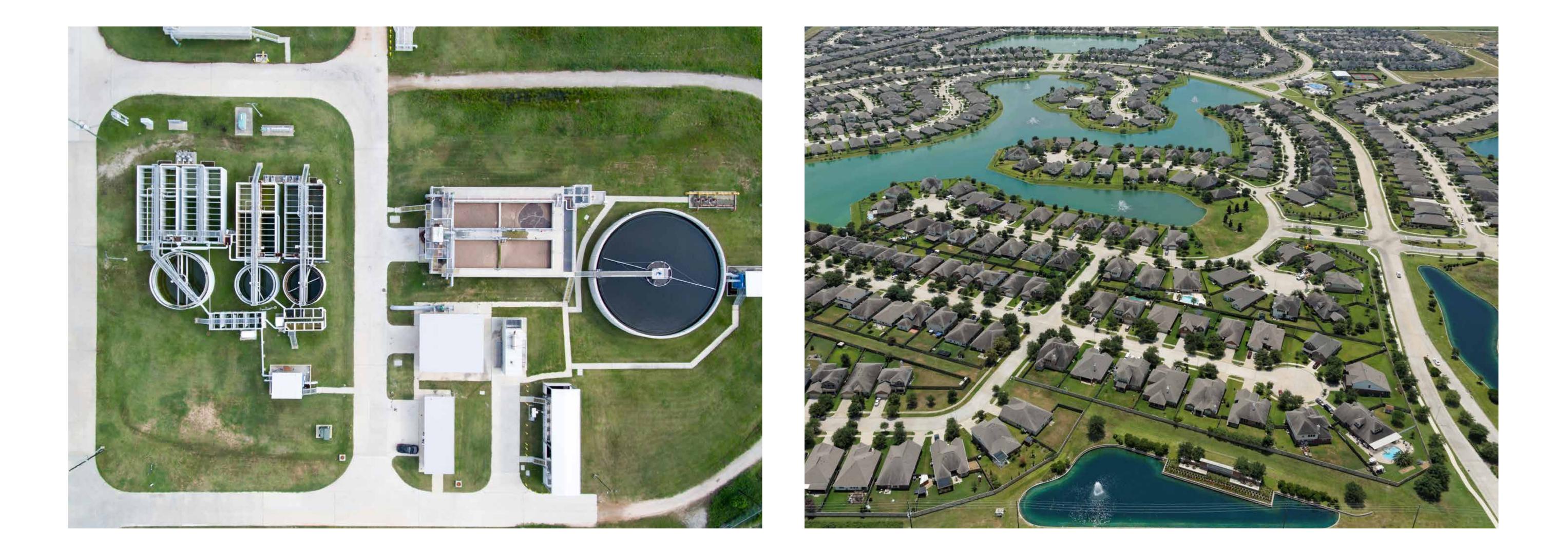


Common Overlooked Aspects of Non-Potable Reclaimed Water

Overview

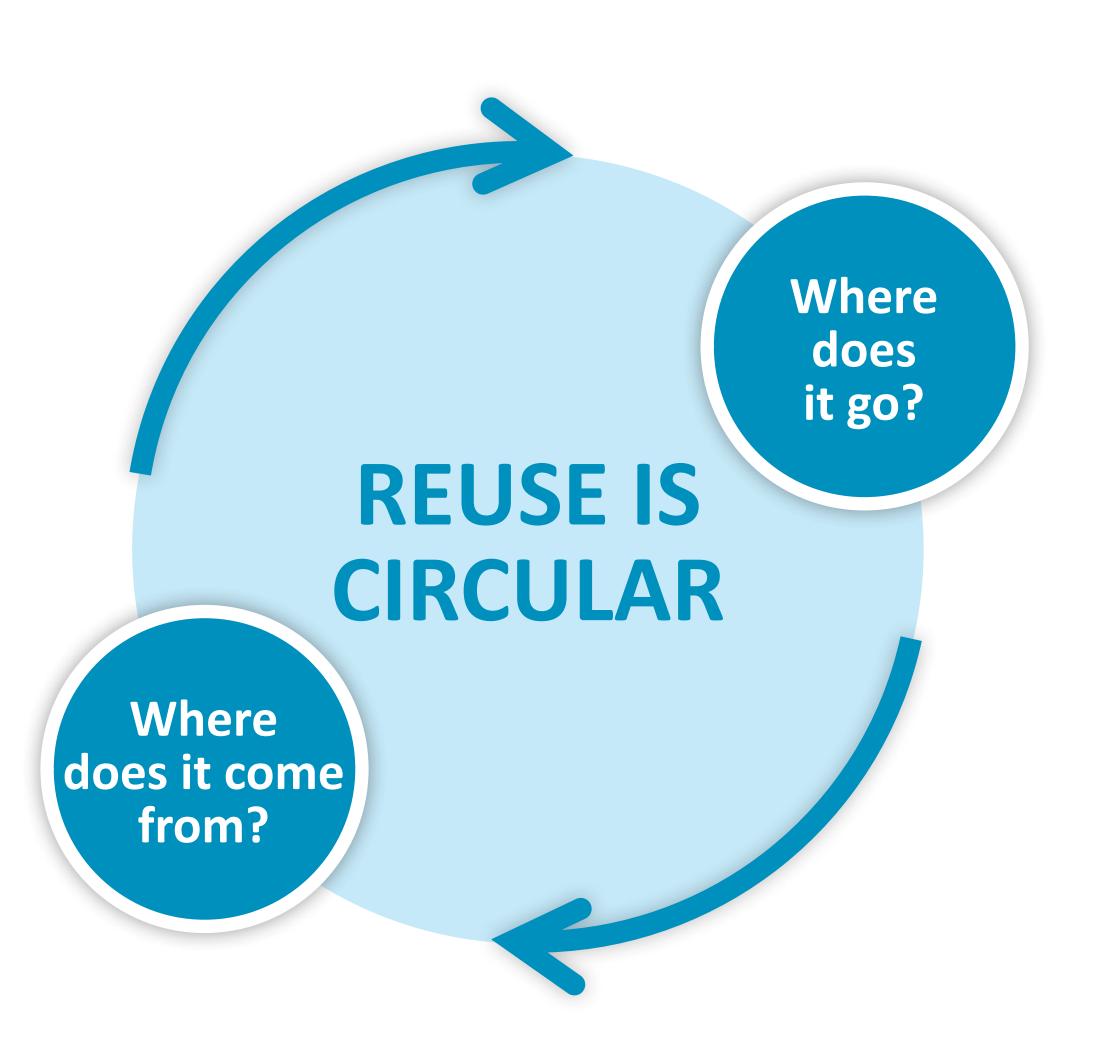
Non-potable reuse water has become a popular form of source water for amenity lakes and irrigation systems. This is due to its many benefits, such as reducing demands on potable water systems and being relatively drought-proof. However, the biggest challenge with any reuse system is that it is not a part of a development's initial planning piecing together different existing systems: wastewater, water, and irrigation. Here, we look at commonly overlooked aspects of piecing these systems together.



End User Considerations

The first aspect revolves around the circular nature between the source of the water and the end user. Since every reuse system and community are unique, both the source water and end user must be considered during planning and design.

It's beneficial first to identify opportunities, such as fountains, amenity lakes, green spaces, public facilities, and golf courses. Each one of the systems is built differently, with varying demand and flow patterns. The end user impacts considerations for the source water, such as source flow pattern, treatment requirements, and storage requirements.

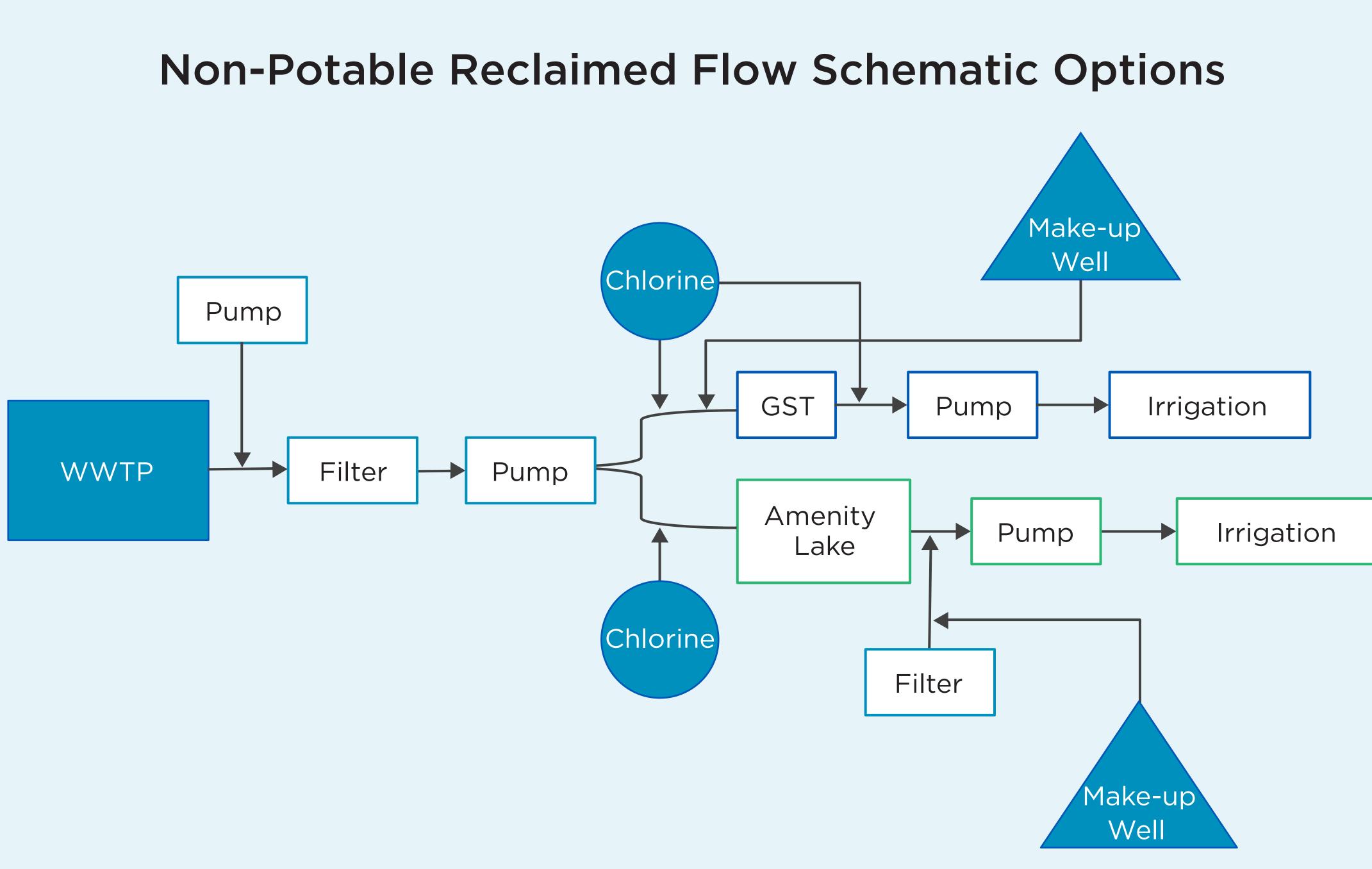


Design Considerations

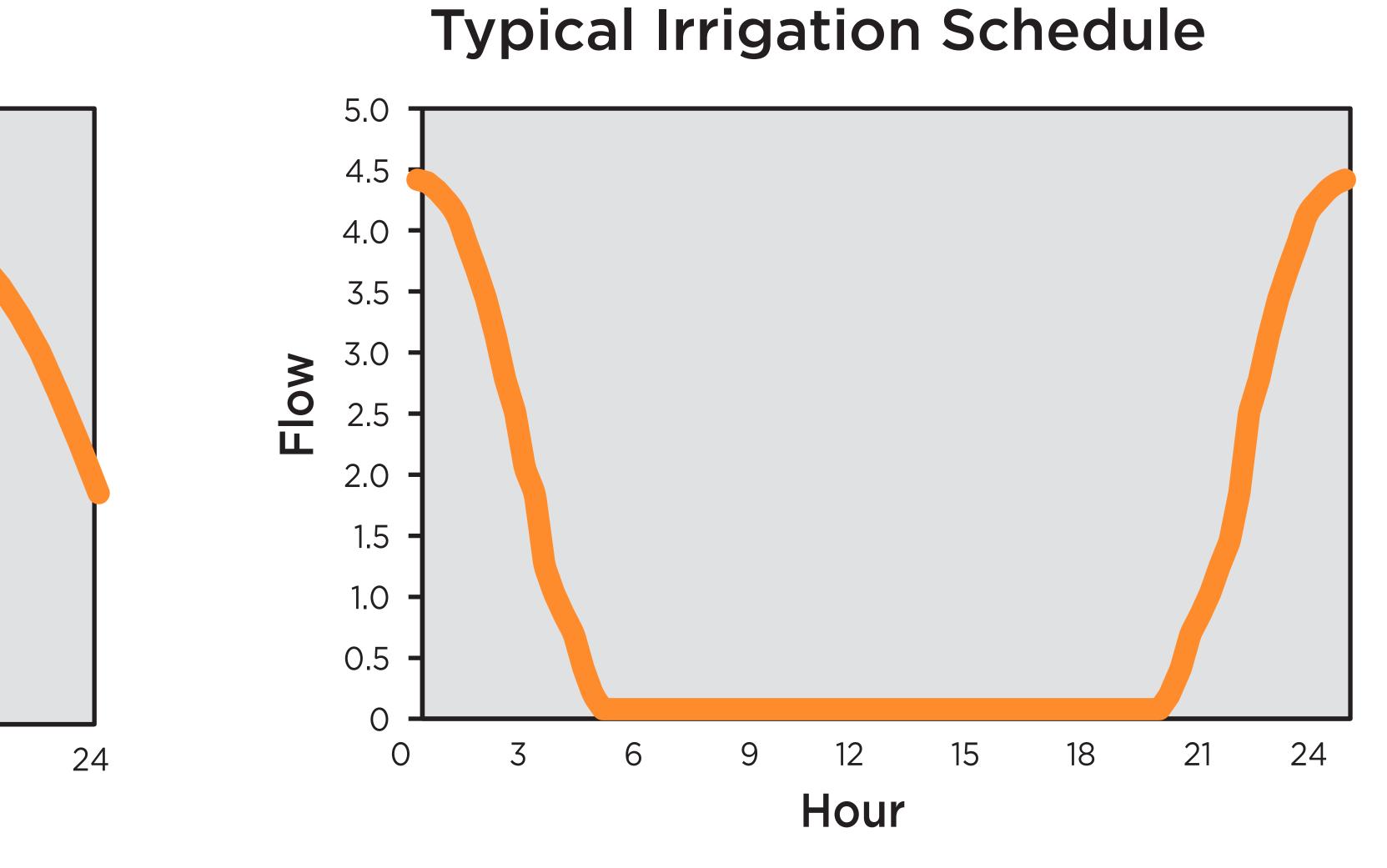
The planning and design of the system must account for the flow pattern of the source water and the demand schedule of the end user. The difference between the end user demand schedule and source water flow patterns is critical in determining storage requirements. If storage is necessary, storage may be provided onsite or offsite in ground storage tanks, amenity lakes, or holding ponds.

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If you are doing a ground storage tank (GST), do you have space on the site that isn't earmarked for future expansion? If you are using an amenity lake, will it require a filter before pumping into the irrigation system?



Flow $ln \neq Flow Out$



Irrigation Considerations

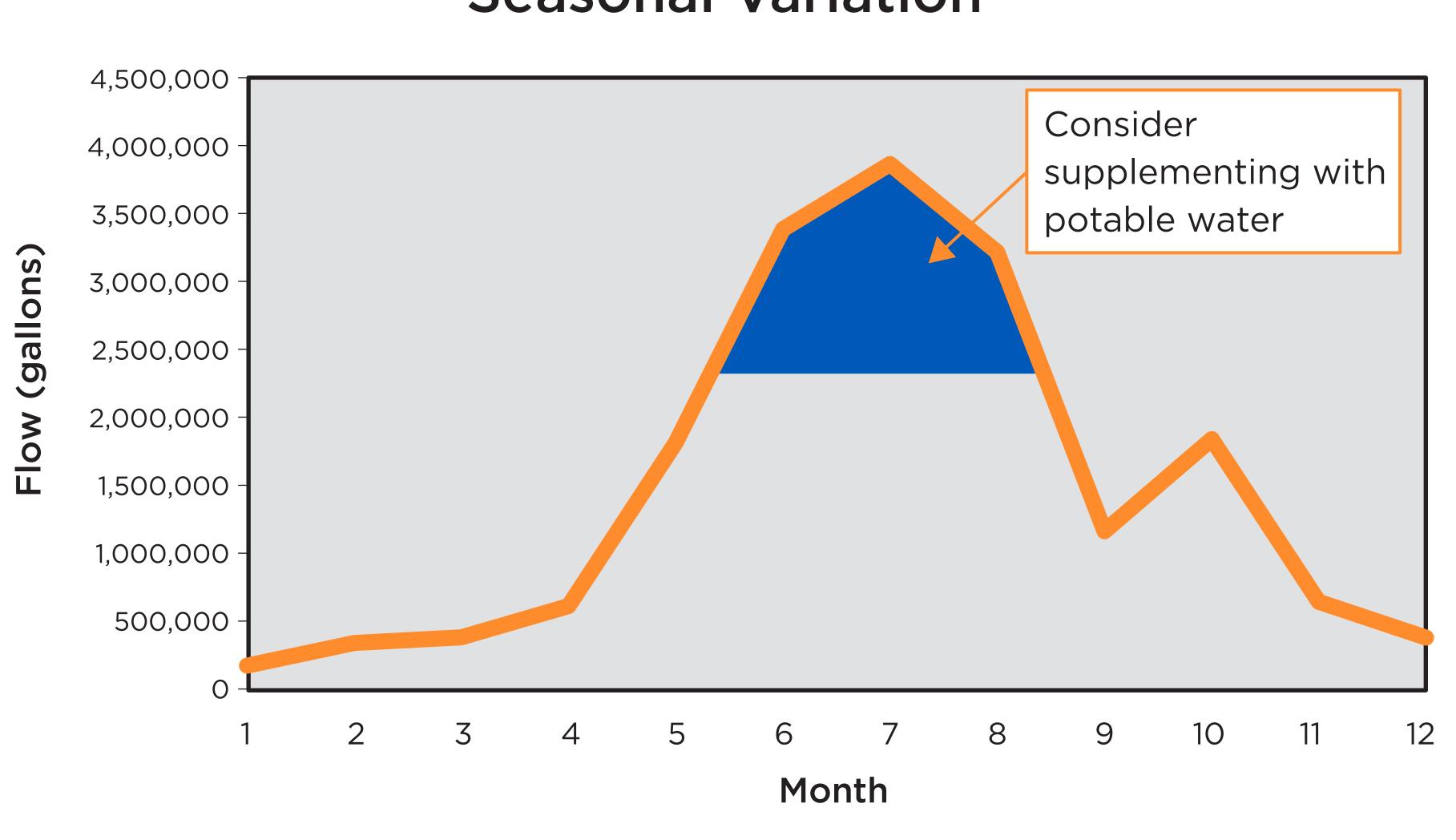
Texas is prone to droughts, which require supplemental water for landscape material. Reuse systems are often designed to meet peak needs, which means the system's full potential can only be used for a few months of the year. Supplementing a system with potable water during a peak demand period allows more service area, and therefore, higher water usage year round.

Irrigation can get expensive; don't leave it out of planning! Things to consider when planning a reclaimed system:

the irrigation plans?

Where can to feed the system?

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Seasonal Variation

