

# ASR Concept - How it Works

## Arrowsmith Reservoir and Dam:

The purpose of the Arrowsmith Reservoir is to collect and store water during the winter. The Arrowsmith Dam controls the release of water from the Arrowsmith Lake Reservoir to the Englishman River during the summer for fisheries enhancements and potable water extraction. The additional flow released from the Dam helps augment and stabilize summer river flows that support aquatic life, riparian flora & fauna and reduce impacts on groundwater. AWS not only provides fishery benefits, it also supports river health and ecological benefits.

## Englishman River:

The Englishman River serves as a natural waterway that conveys water from the Arrowsmith Reservoir to the point of extraction from the river. Not all water released from the Arrowsmith Dam makes it to the extraction point, depending on the time of year; water is lost through evaporation and into the ground which helps recharge the Englishman River aquifer.

## Proposed Englishman River Water Service (ERWS) - New Water Intake:

The location of the proposed new water intake is at the Highway 19 crossing at the Englishman River.

## Proposed Englishman River Water Service (ERWS) - Water Treatment Facility:

Will receive water from the Englishman River and treat to Canadian Drinking Water Standards. The primary objectives are to reduce turbidity and reduce the risk of microbial contamination. The facility will be expanded in phases to accommodate the Region's health and growth demands over time.

## Above Ground Reservoirs:

Provide balancing storage for peak water use demands and emergency fire fighting storage

## Existing Municipal Wells:

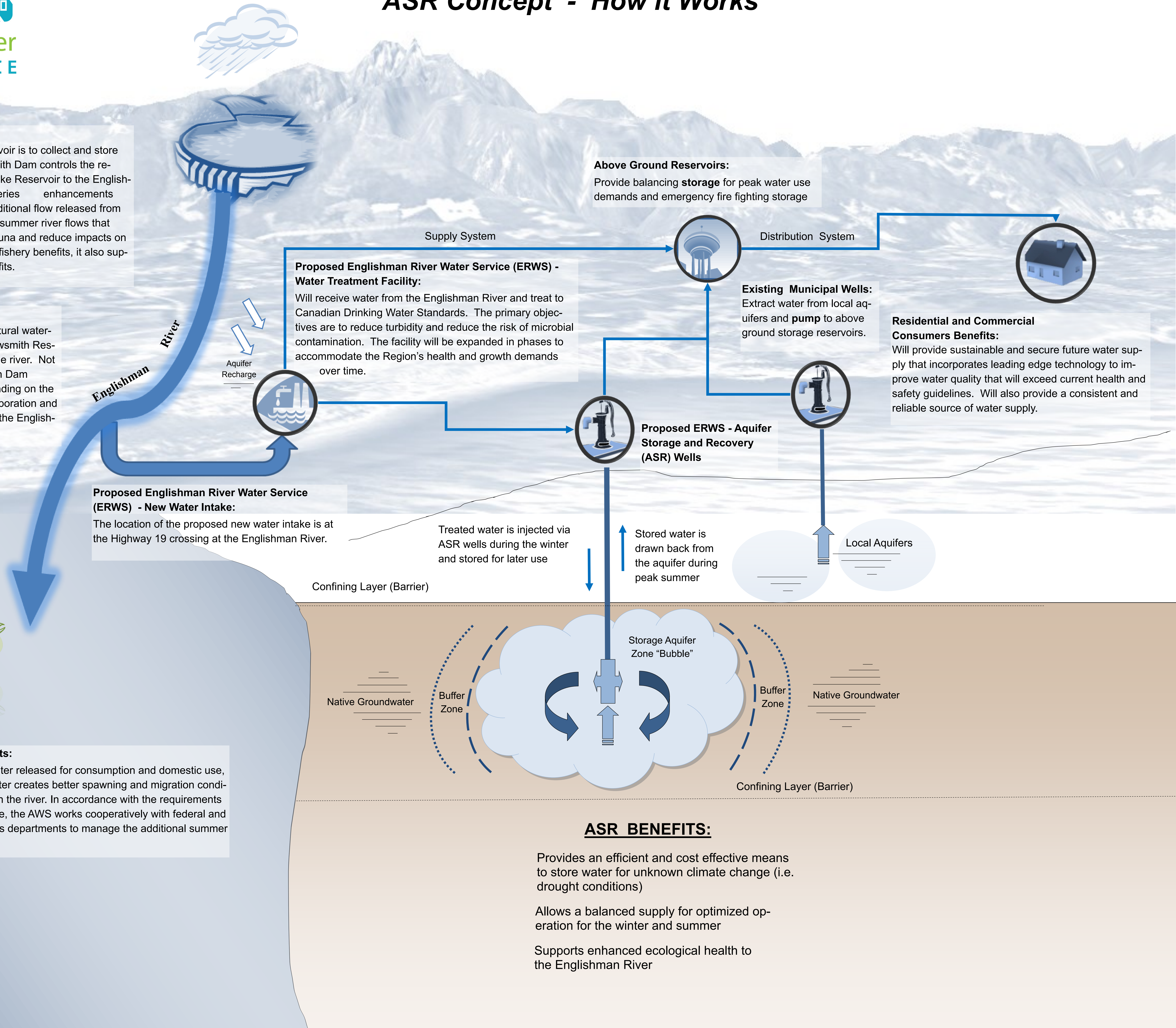
Extract water from local aquifers and pump to above ground storage reservoirs.

## Residential and Commercial Consumers Benefits:

Will provide sustainable and secure future water supply that incorporates leading edge technology to improve water quality that will exceed current health and safety guidelines. Will also provide a consistent and reliable source of water supply.

## Fisheries Benefits:

Along with the water released for consumption and domestic use, this additional water creates better spawning and migration conditions for the fish in the river. In accordance with the requirements of its water license, the AWS works cooperatively with federal and provincial fisheries departments to manage the additional summer flows.



## ASR BENEFITS:

Provides an efficient and cost effective means to store water for unknown climate change (i.e. drought conditions)

Allows a balanced supply for optimized operation for the winter and summer

Supports enhanced ecological health to the Englishman River