



WHO DIRTIED THE WATER?



LONG AGO IN THE BOSTON MOUNTAINS



SOURCE: littlebuffalodotcom.files.wordpress.com/2012/12/img_5000.jpg

STREAMS RAN CLEAN & CLEAR



SOURCE: littlebuffalodotcom.files.wordpress.com/2013/03/img_3143.jpg

WILDLIFE FLOURISHED

AMERICAN BLACK BEAR



SOURCE:

www.arkansas.com/outdoors/birding/wildlife/bear/

AMERICAN BLACK BEAR



SOURCE: ozarkbill.files.wordpress.com/2014/01/img_9400.jpg?w=619&h=279

WHITE-TAILED DEER



SOURCE:

[www.agfc.com/species/Pages/SpeciesWildlifeDetails2.aspx?Title=White-tailed Deer](http://www.agfc.com/species/Pages/SpeciesWildlifeDetails2.aspx?Title=White-tailed%20Deer)

HICKORY NUTS



SOURCE:

arkarcheology.uark.edu/indiansofarkansas/printerfriendly.html?pageName=Ancient+Foodways

WILD TURKEYS



SOURCE:

littlebuffalodotcom.files.wordpress.com/2012/07/img_3417.jpg

Would you want to swim in the river?

Would you drink water from the lake?

Would you eat the fish you caught there?

How do you think either one would taste?

STREAMSIDE WETLANDS



SOURCE:

www.daviduhrin.com/sitebuildercontent/sitebuilderpictures/.pond/Ohio_Wetlands.jpg.w560h420.jpg

ARKANSAS FATMUCKET MUSSEL



SOURCE: www.naturalheritage.com/gallery/rare-animals-invertebrates/#2277 Photo: U.S. Fish and Wildlife Service

FRESHWATER MUSSELS

RABBITSFOOT MUSSEL



Photo: U.S. Fish and Wildlife Service

OSAGE PEOPLE LIVED HERE 300 YEARS AGO



SOURCE:
arkarcheology.uark.edu/indian/sofarkansas/index.html?pageName=The+Osage+Indians



SOURCE:
upload.wikimedia.org/wikipedia/commons/0/02/Osage_nation_seal.gif



SOURCE:
upload.wikimedia.org/wikipedia/commons/thumb/a/ae/Map_of_Traditional_Osage_Tribal_Lands_by_Late_17th_Century.jpg/300px-Map_of_Traditional_Osage_Tribal_Lands_by_Late_17th_Century.jpg



SOURCE:
www.ozarkhistory.com/sonyahall.gif

OSAGE FOOD SOURCES & MIDDENS



SOURCE:
www.wvculture.org/shpo/es/lifeways.html



SHELL MIDDEN

SOURCE:
www.nps.gov/miss/naturescience/images/midden.jpg



SOURCE:
www.wvculture.org/shpo/es/lifeways.html

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ARRIVAL OF EUROPEAN SETTLERS IN THE 1800s



SOURCE:

littlebuffalodotcom.files.wordpress.com/2012/01/img_0047_tonemapped_tonemapped.jpg



SOURCE: thelibrary.org/lochist/periodicals/wrv/v1/n6/0106p12.jpg



Arkansas Democrat-Gazette/KAREN VANDONGE

Turbidity caused by erosion on the West Fork of the White River caused the U.S. Environmental Protection Agency to list the stream as "impaired." A 2002 University of Arkansas study determined the turbidity was decreasing the number of fish species found in the river.



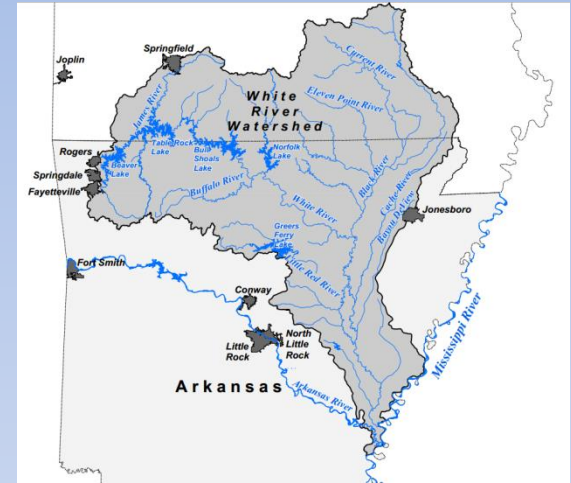
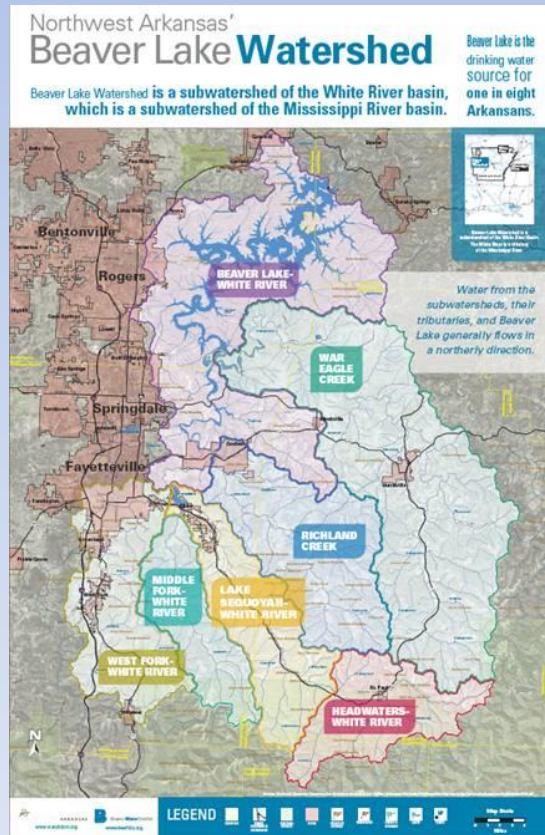
SOURCE:

www.gocolumbiamo.com/PublicWorks/StormWater/images/FlatBranchHouses.jpg



BEAVER LAKE BEGAN BY BUILDING BEAVER DAM ON THE WHITE RIVER IN THE 1960s

The Beaver Lake Watershed encompasses over 766,026 acres or 1200 square miles. It is a sub-watershed of the White River Watershed which is a sub-watershed of the Mississippi River Watershed.



SOURCE: hillnholler.files.wordpress.com/2013/07/white-river-watershed.png



SOURCE: www.mvd.usace.army.mil/portals/52/siteimages/P1_new.jpg

1800s TO PRESENT EXPANDING POPULATION, PAVEMENT, & POLLUTION PROBLEMS



SOURCE:

www.fayettevillenatural.org/userfiles/image/40%20MUD%20CREEK-JOYCE-71%20labels.JPG



SOURCE:

knoe.images.worldnow.com/images/23081577_BG1.jpg

SOURCE: www.americanrivers.org/wp-content/uploads/2013/08/stormwater-flooding.jpg



SOURCE: www.huntventures.net/ICSC.h4.gif

Would you want to swim in the river?

Would you drink water from the lake?

Would you eat the fish you caught there?

How do you think either one would taste?

**Who dirtied
the water?**

ALL OF US

Who is responsible for cleaning it up?

ALL OF US

**What are some ways that
we can clean up the
watershed(s)?**

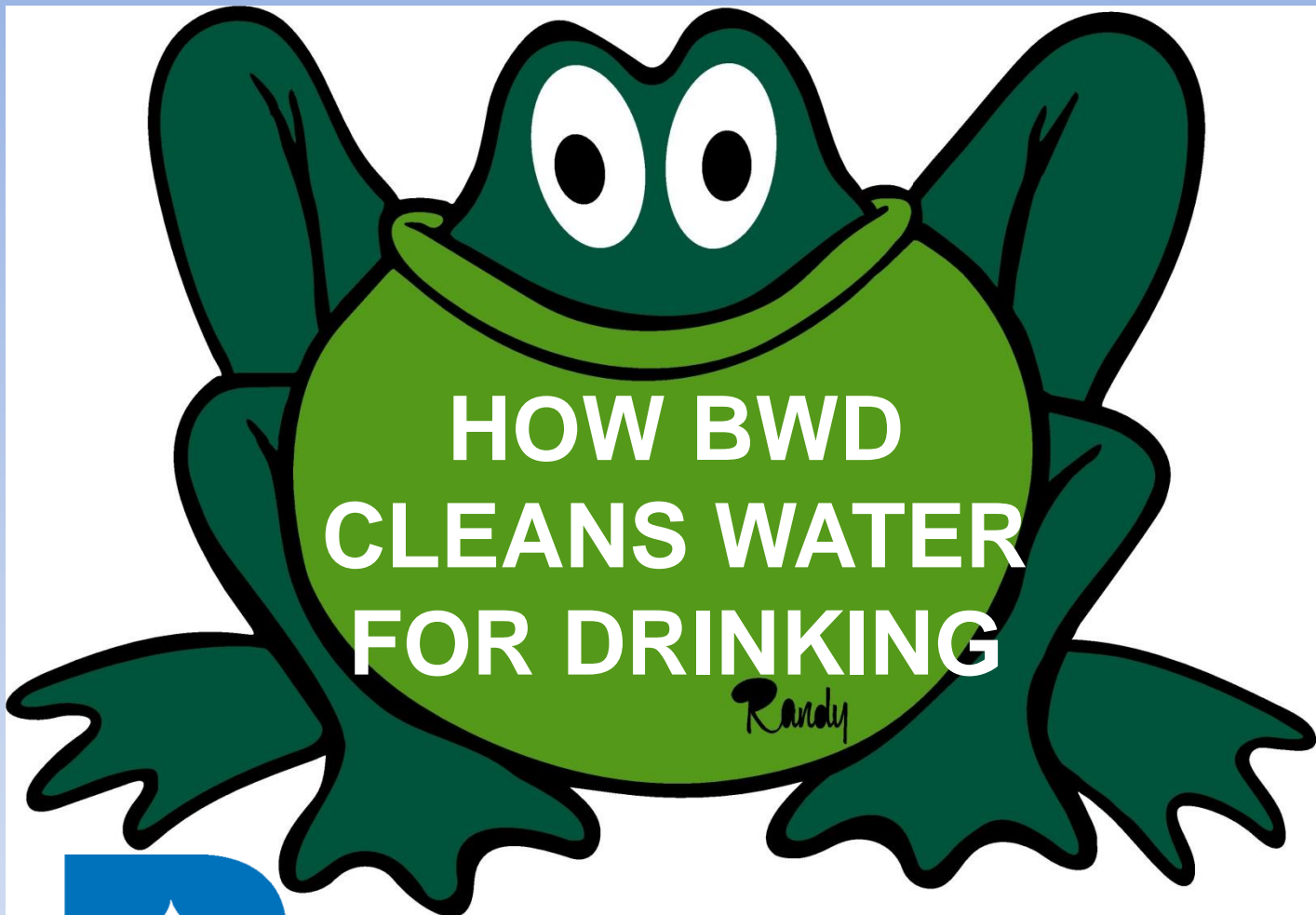
- **Community Clean-Ups**
- **Pick up trash when we see it**
- **Don't litter or dump in storm drains**
- **Reduce-reuse-recycle**

What are some ways of preventing pollution?

- **Apply fertilizer as needed**
- **Pick-up pet waste**

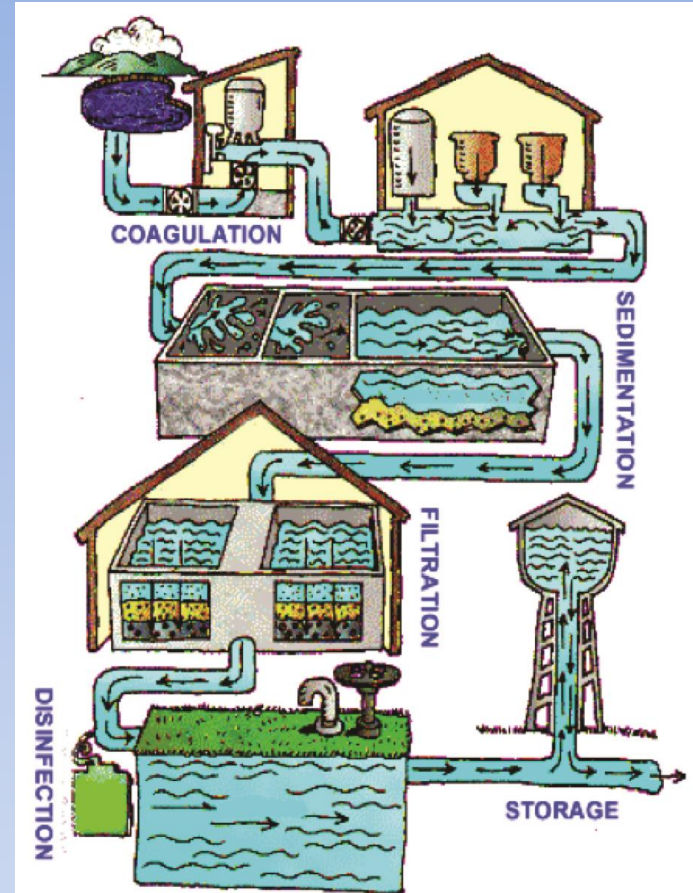
**Why is it important to
keep the water clean?**

**All living things need
clean watershed**



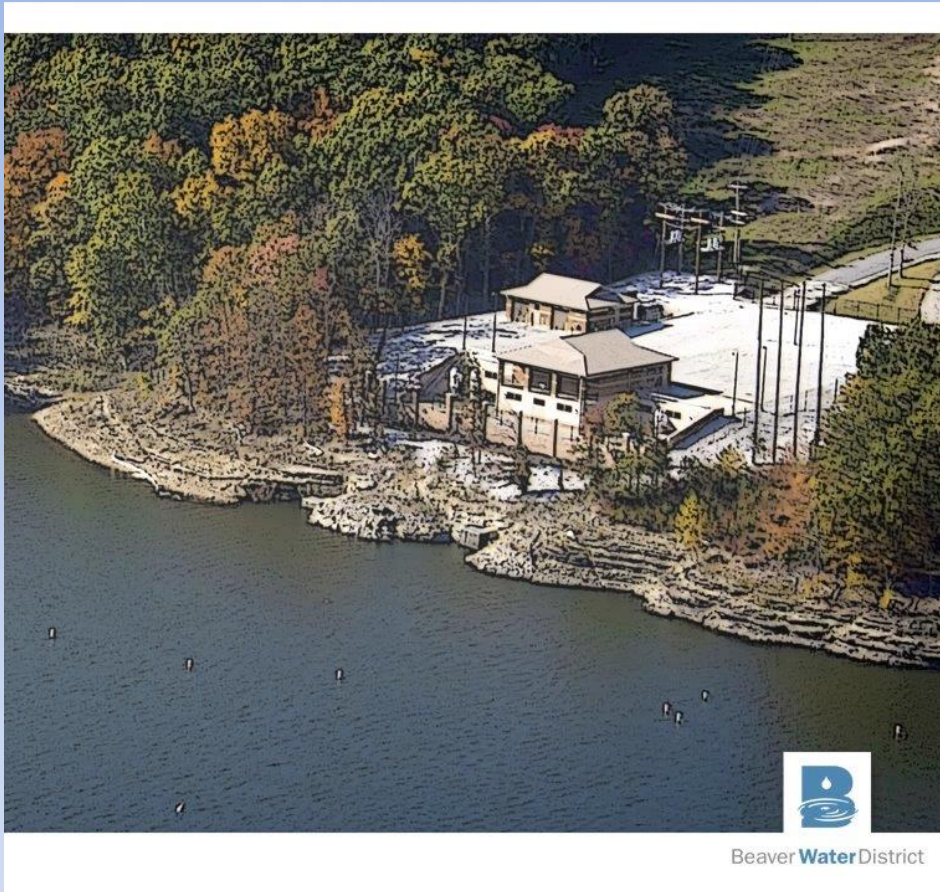
Beaver **Water** District
www.bwdh2o.org

Dot Neely/BWD Education Program Coordinator
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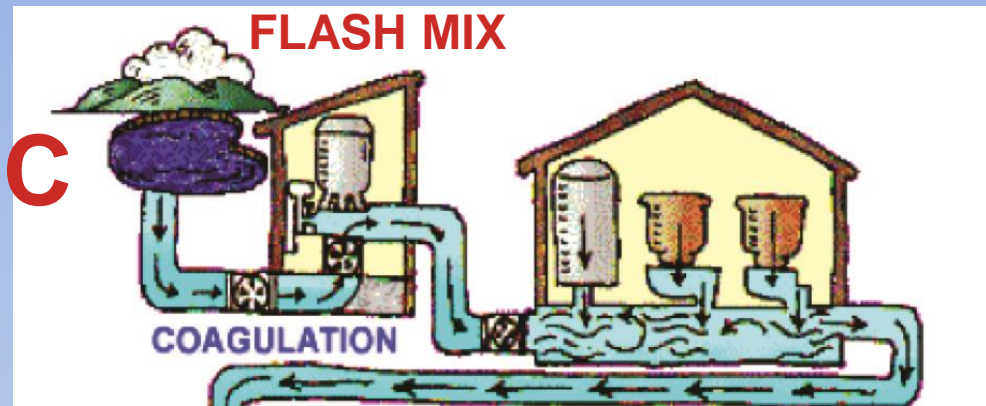




INTAKE
TAKE WATER IN FROM THE LAKE
TO THE TREATMENT PLANT

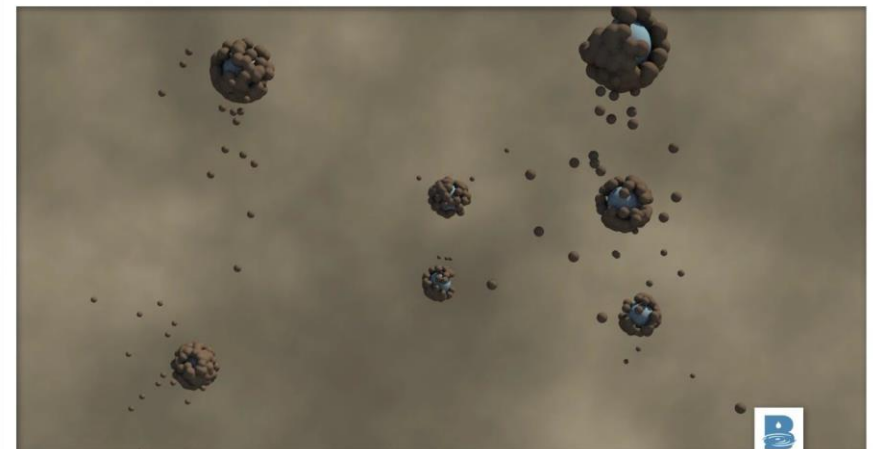
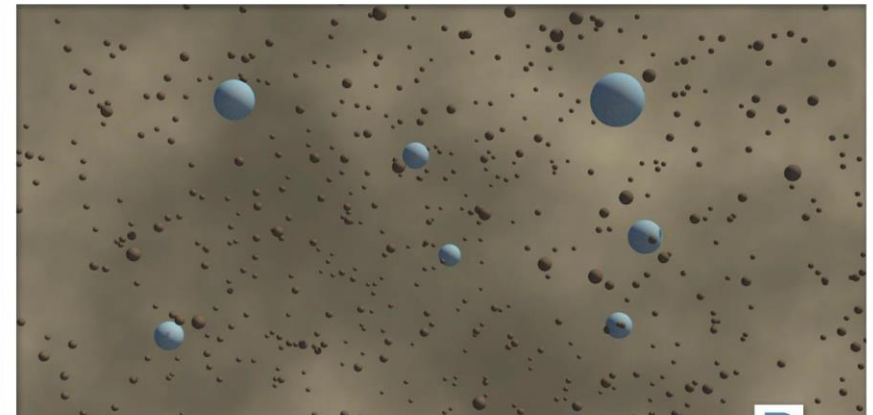
FLASH MIX & FLOC

ALUM & OTHER CHEMICALS ARE ADDED TO LAKE WATER TO FORM TINY STICKY PARTICLES CALLED "FLOC," WHICH ATTRACT DIRT TO FORM LARGER AND HEAVIER PARTICLES.



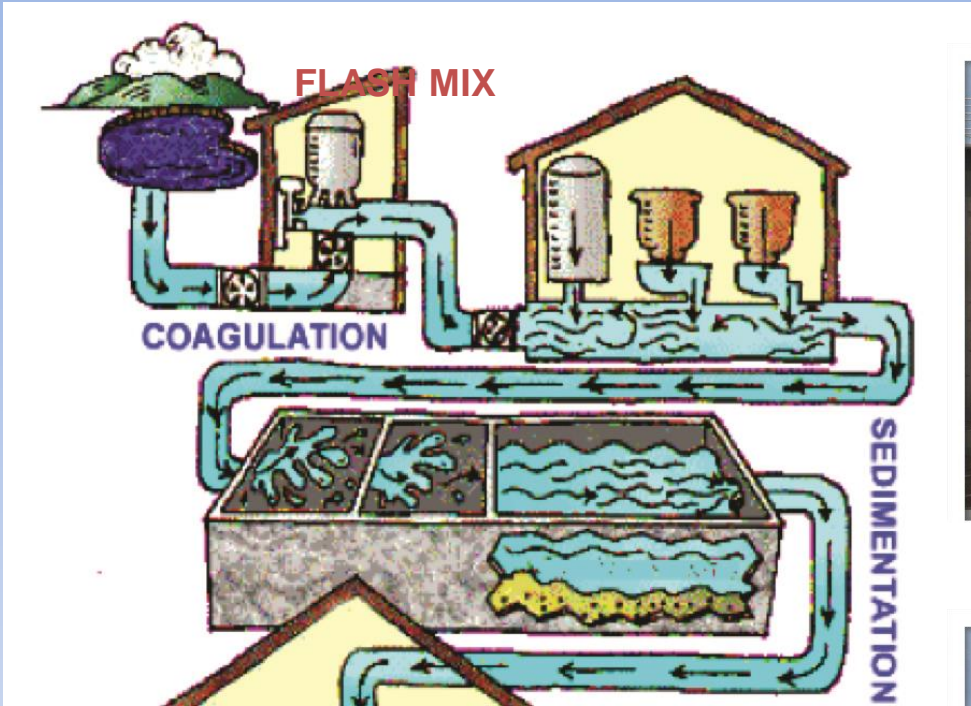
COAGULATION

THE COMBINING OF SMALL PARTICLES TO FORM LARGER, HEAVIER PARTICLES.



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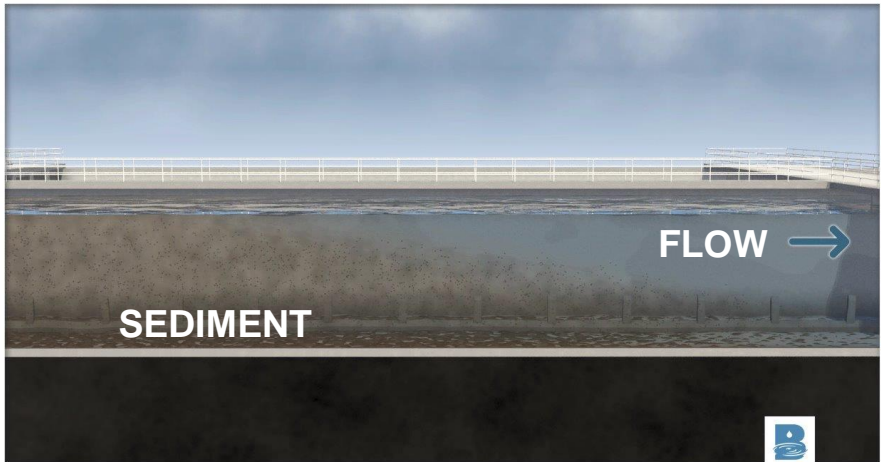




SEDIMENTATION CHAMBERS



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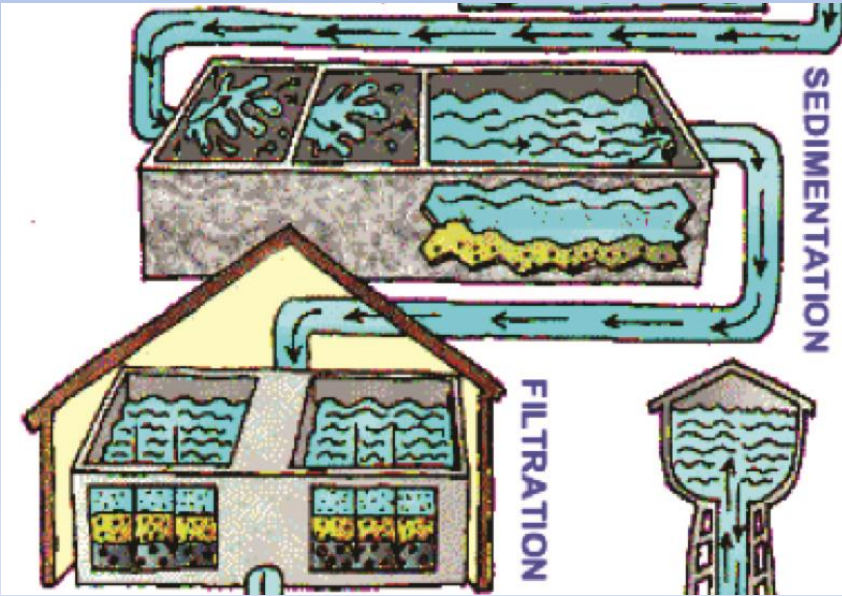
SEDIMENTATION
 THE SINKING AND SETTLING OF
 PARTICLES DOWNWARD



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FILTRATION

PASSING OF WATER THROUGH MATERIALS WHICH REMOVE THE SMALLEST PARTICLES

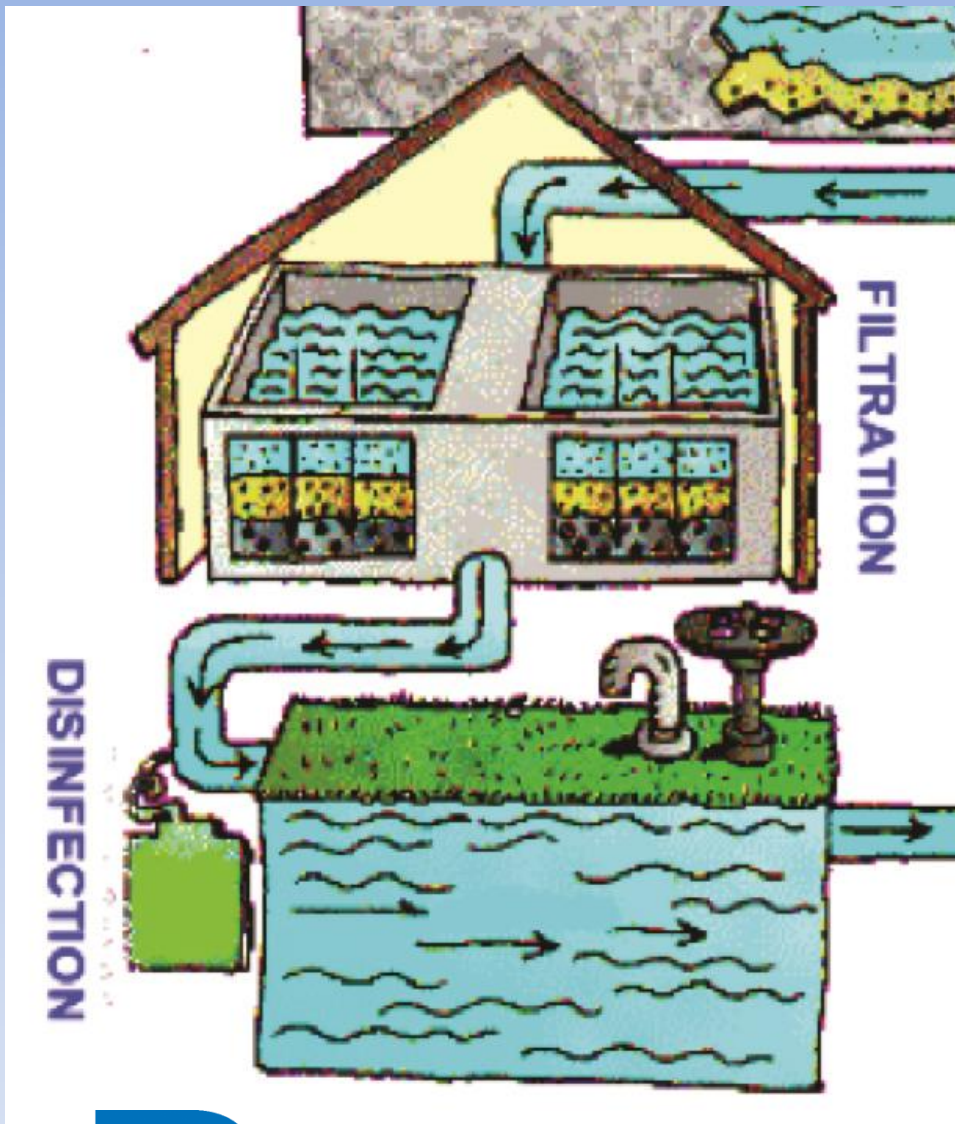


FILTER DECK



FILTER CHAMBERS



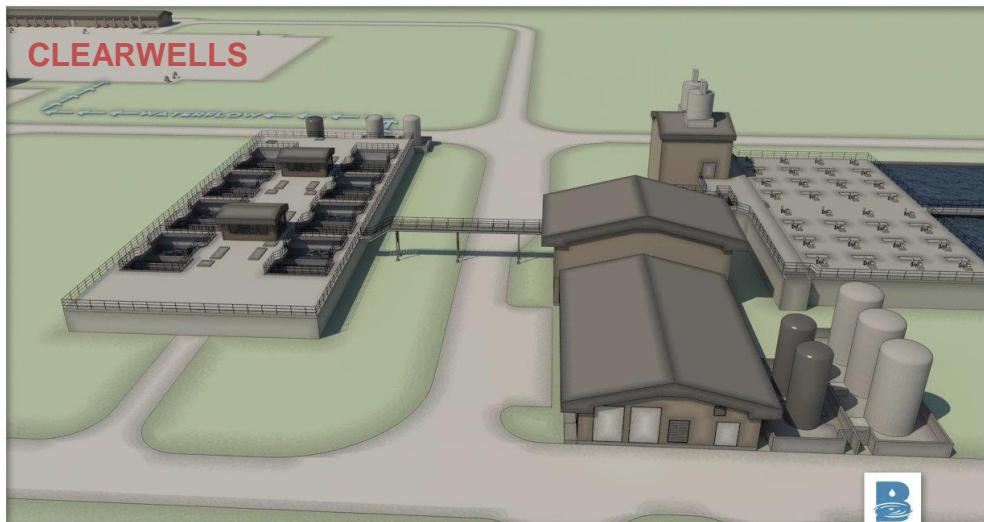
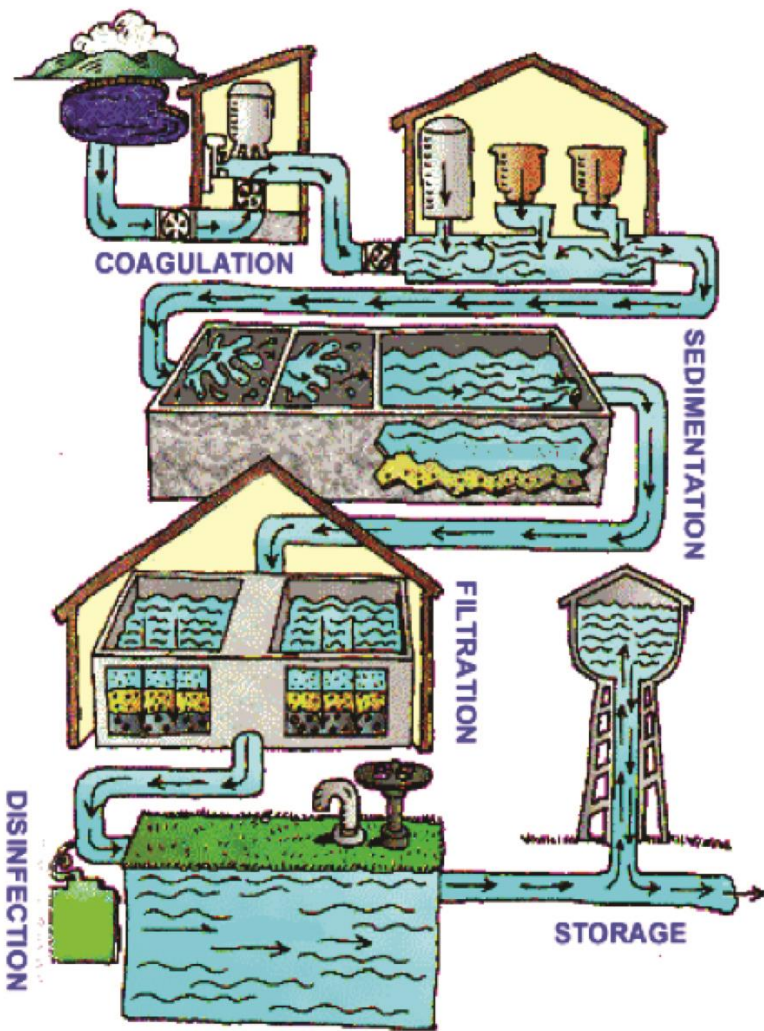



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DISINFECTION
THE ADDITION OF CHLORINE TO
KILL BACTERIA OR MICRO-
ORGANISMS



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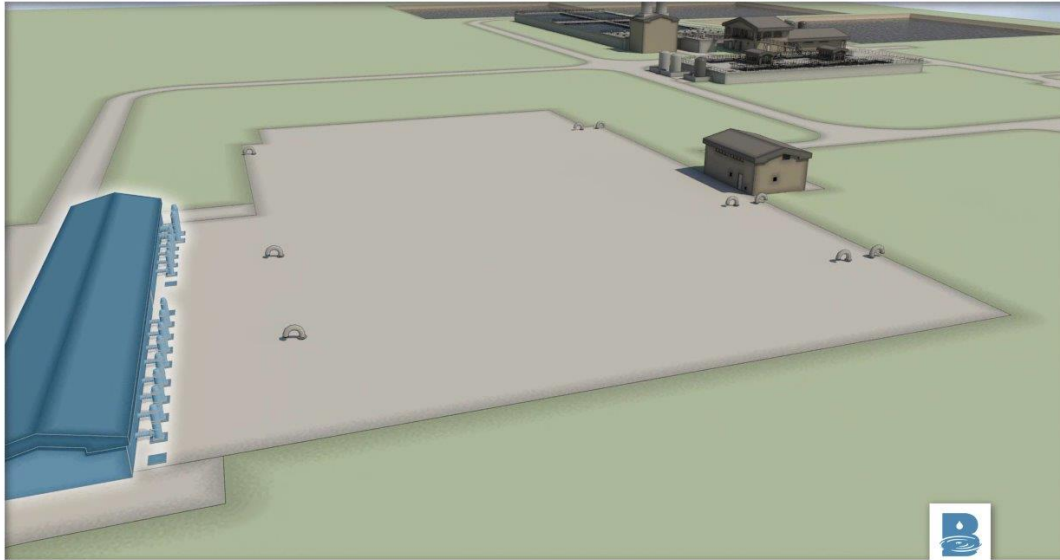
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STORAGE

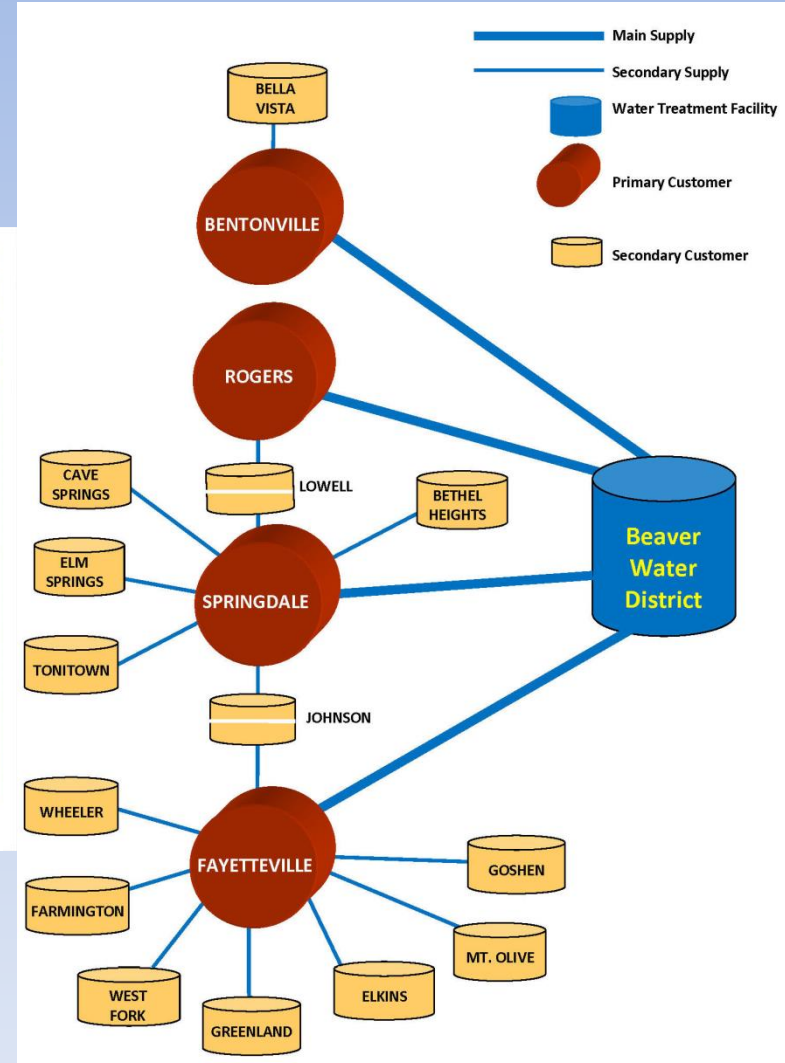
CLEARWELLS ARE BASINS FOR HOLDING WATER BEFORE DISTRIBUTION

DISTRIBUTION

SENDING WATER TO CITY WATER UTILITIES WHICH THEN SEND IT TO YOUR HOUSE



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DRINKING WATER TREATMENT KIOSK



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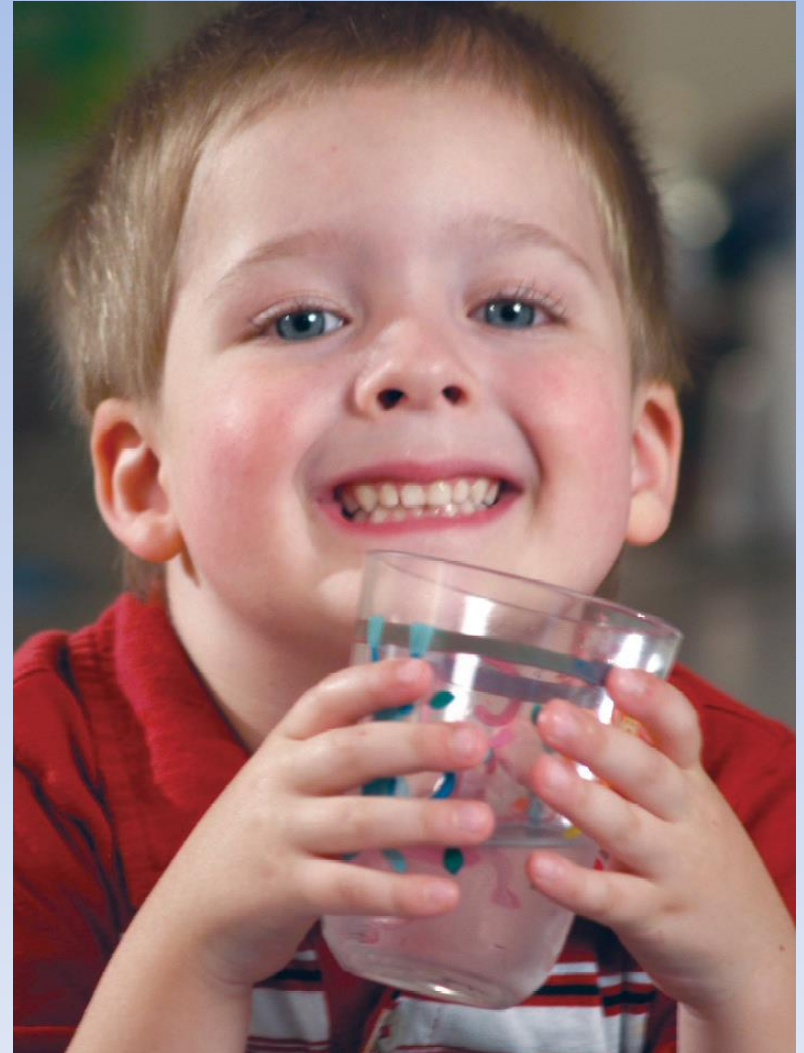
**Beaver Lake.
You drink it every day!**



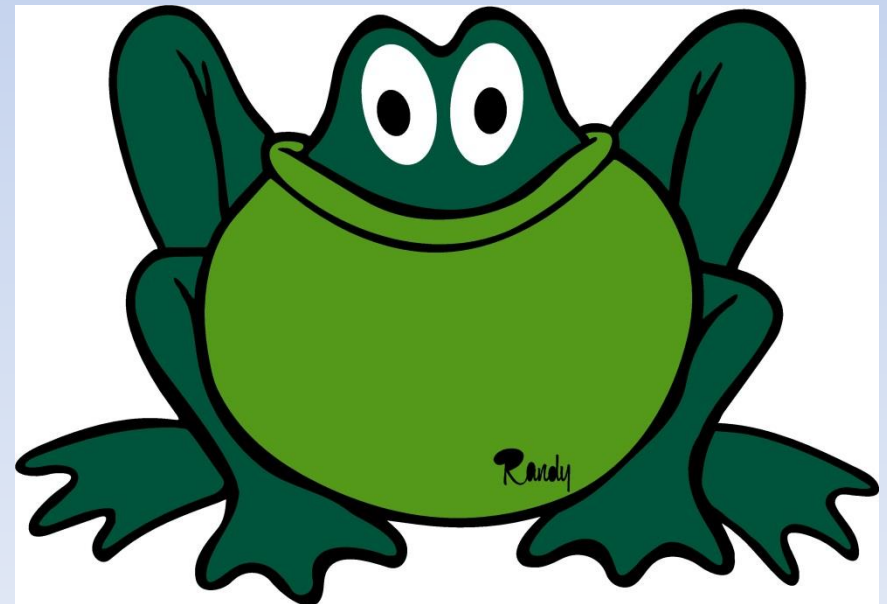
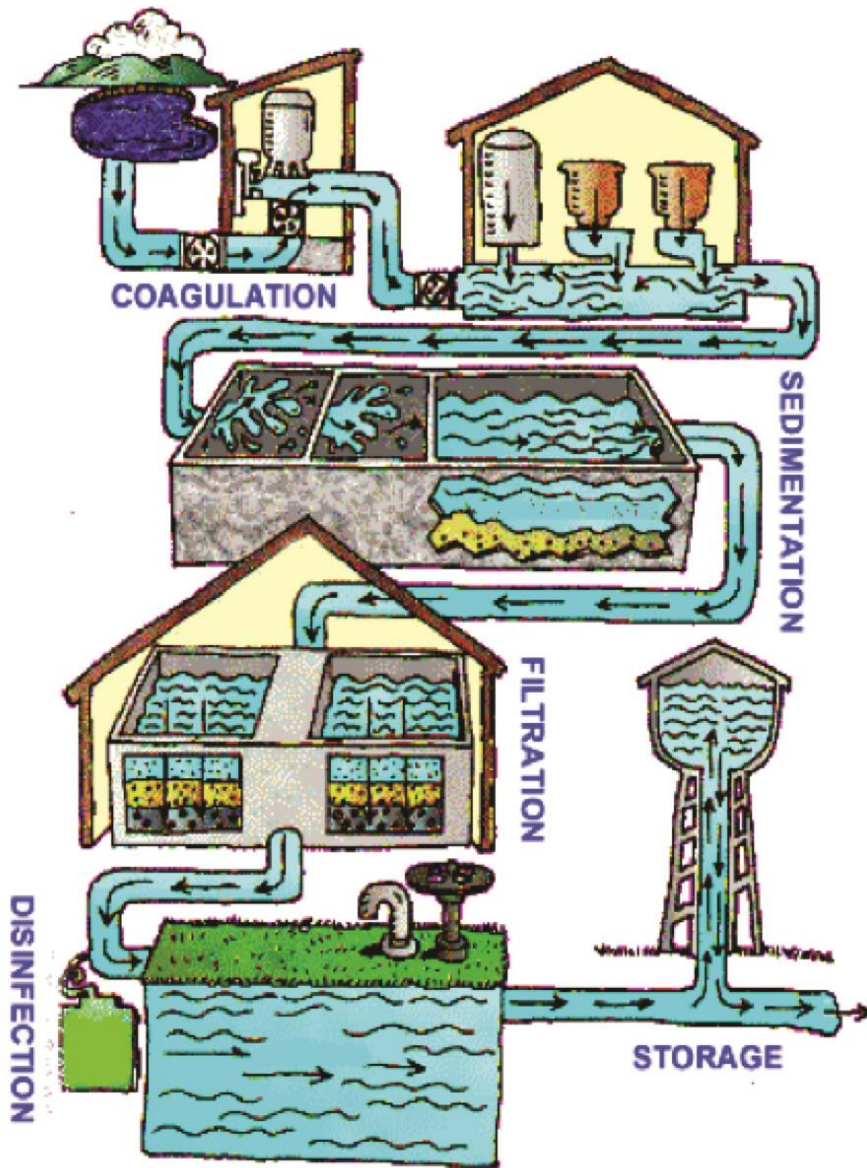
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AND NOW YOU KNOW AS MUCH AS A FROG ABOUT DRINKING WATER TREATMENT



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QUESTIONS?



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