

# KIDS WATER Activity Pack



HYDROLOGIC  
TEMPERATURE  
EVAPORATE  
VAPOR  
RAIN  
OFF

M B H I O Z M G D B E E P X L  
A P A D L N G Q P I S Y S D W  
E G Q O B B G A L N K V M S T  
M A P O B B G A L N K V M S T  
E G Q O B B G A L N K V M S T  
E W M N C F R B V A I E Y S B  
W T F

## “Protecting Our Watershed”

Condensation

Precipitation

Surface  
Runoff

HYDROLOGIC

Santa Ana

Well &  
Pump  
Station

Wetlands

Ocean

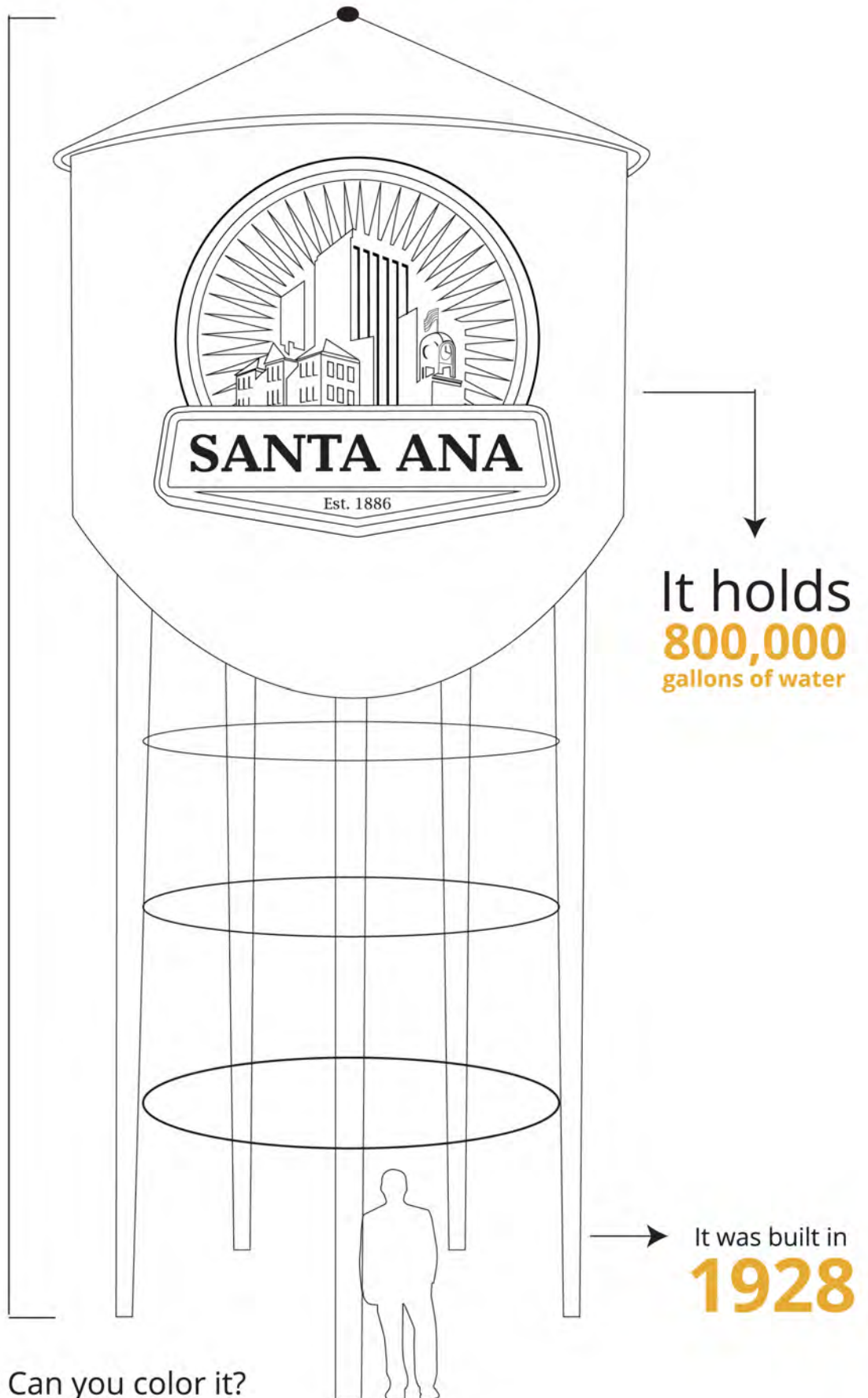
Groundwater Flow

Confining Layer

Flow

# Santa Ana's Water Tower

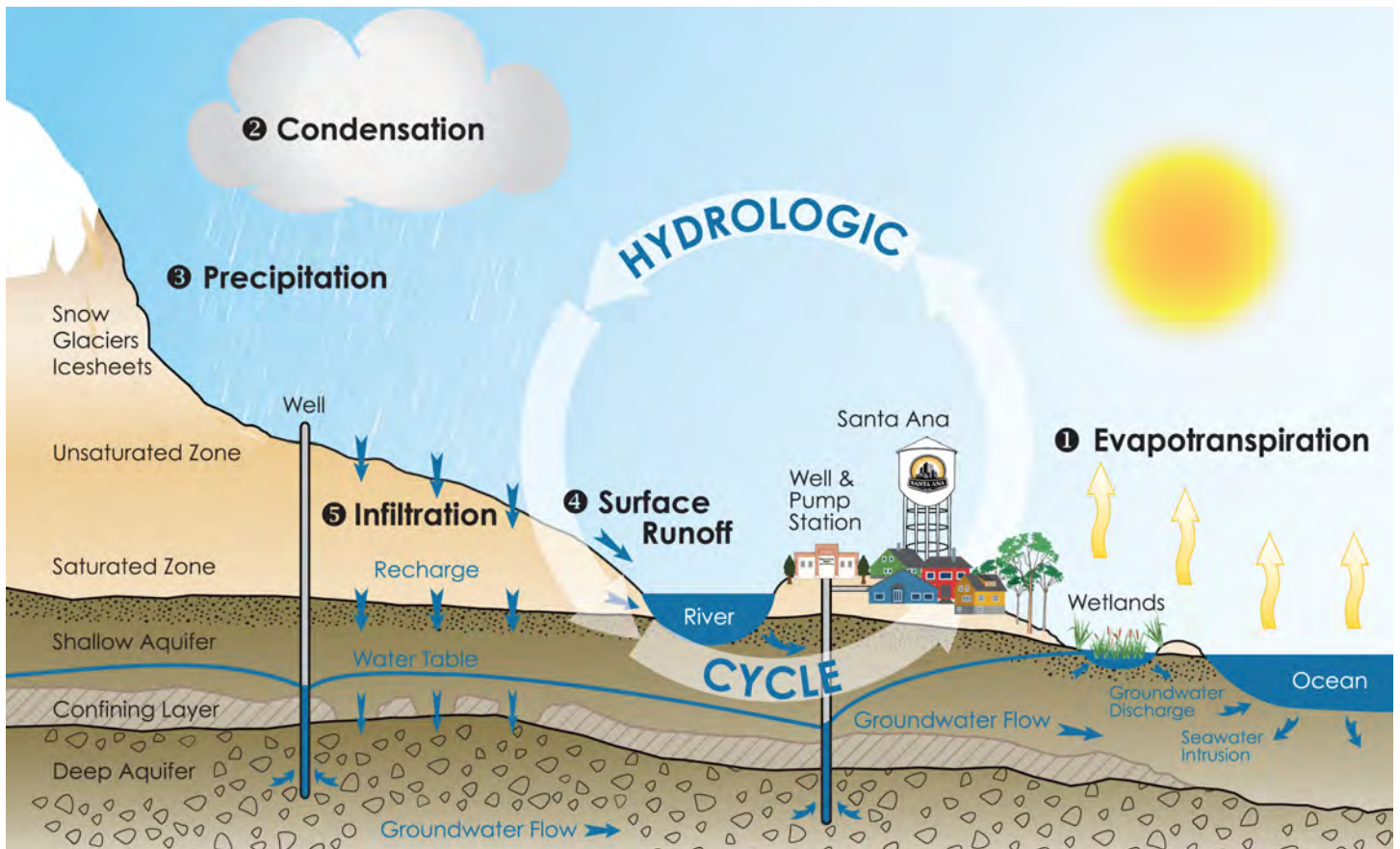
*A symbol of the City's rich heritage.*



Name \_\_\_\_\_

# The Water Cycle: Replenishing Our Watershed

The Water Cycle describes how water evaporates from the surface of the earth, rises into the atmosphere, cools and condenses in clouds, and falls again to the surface as rain and snow. Rain water and snow after it melts collects in rivers and lakes, soil, and porous layers of rock called "aquifers." Much of this water flows back into the oceans, where the cycle starts all over again. The Water Cycle gives us a reliable supply of water because it refills our rivers, lakes, reservoirs, and wet lands with water. It also refills the aquifers underground. Did you know 70 percent of the drinking water that Santa Ana delivers to your home comes from groundwater?



Match each numbered word in the picture with its definition below. Write the number next to it.

- #\_\_\_ Clouds lose their water as rain or snow through precipitation, which falls to the earth's surface.
- #\_\_\_ As water vapor cools, it condenses to form clouds, which can result in precipitation.
- #\_\_\_ Surface water that accumulates in lakes, ponds and oceans is heated by the sun and evaporates, returning moisture to the atmosphere, while plants return water to the atmosphere by transpiration.
- #\_\_\_ Precipitation is either absorbed into the ground or flows overland as runoff into streams, lakes and the ocean. Runoff can also come from snow packs that thaw and melt in the spring.
- #\_\_\_ Some water moves downward or infiltrates through cracks and pores in soil and rocks until it reaches the water table where it becomes groundwater and replenishes the aquifer. Groundwater is pure and drinkable.

Name \_\_\_\_\_

# The Santa Ana Watershed

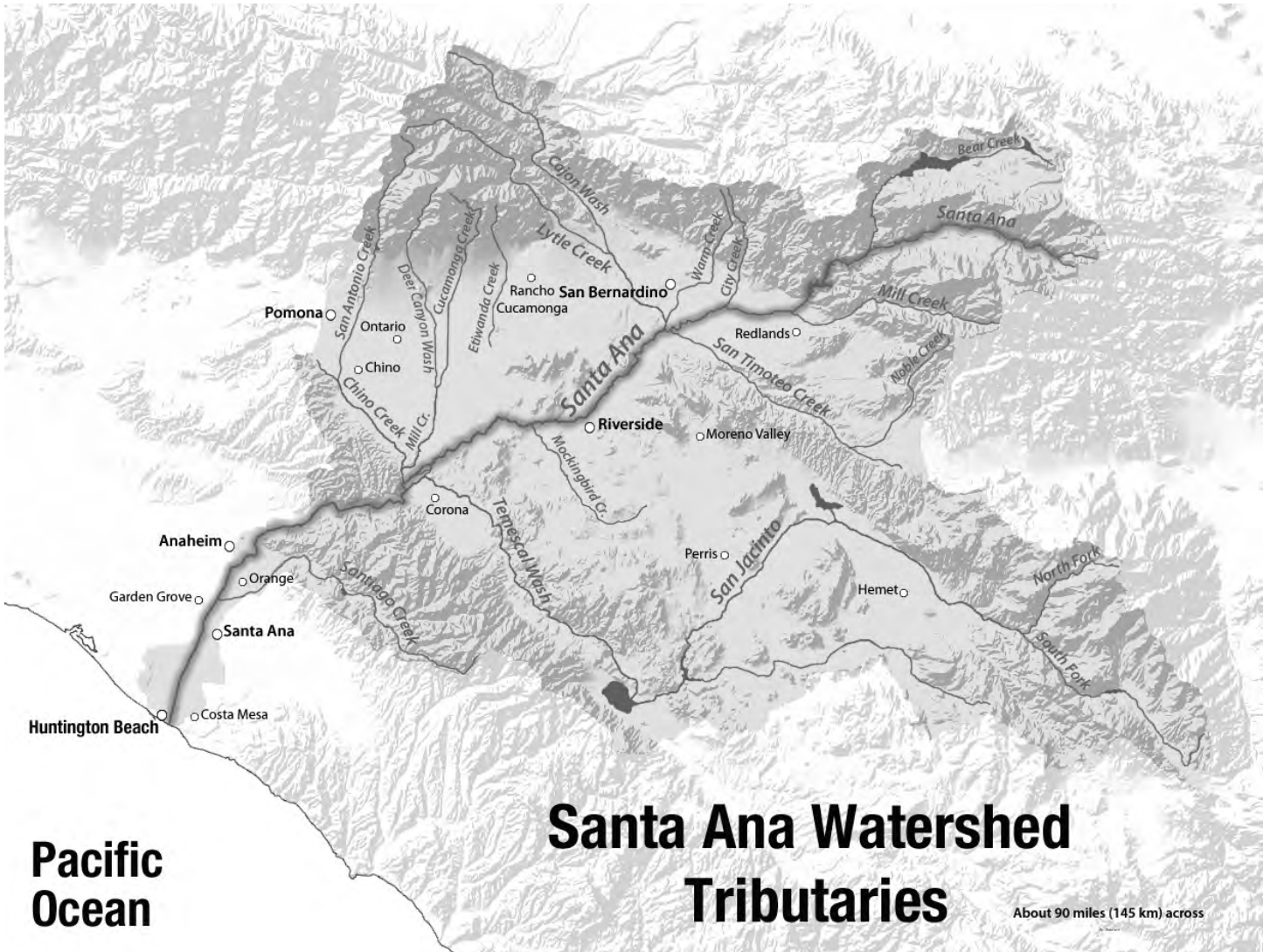
The Santa Ana Watershed has 50 creeks, streams and rivers that look like branches called "tributaries." Using a blue crayon, pencil or marker, trace over the tributaries below.

Circle where you live. Can you name the two tributaries that run through your city?

1. \_\_\_\_\_

2. \_\_\_\_\_

Can you locate the Santa Ana River? Circle the location where it joins with the Pacific Ocean.



Name \_\_\_\_\_

# Where Does Our Stormwater Go?

When rain falls on hard surfaces like pavement, sidewalks, roofs, and cars, it can't soak into the ground. Instead, it runs off the hard surface and flows into neighborhood gutters and local storm drains. In the process, this stormwater can pick up pollutants, such as trash, soil, and chemicals, that it finds along the way.

Storm drains carry stormwater to our creeks, streams and eventually the ocean without any filtering or cleaning. If the stormwater is filled with pollutants, it can be toxic to the natural habitat: the plants, animals and fish that live in and around our watershed. That's why we must all do our part to protect our watershed from pollution.

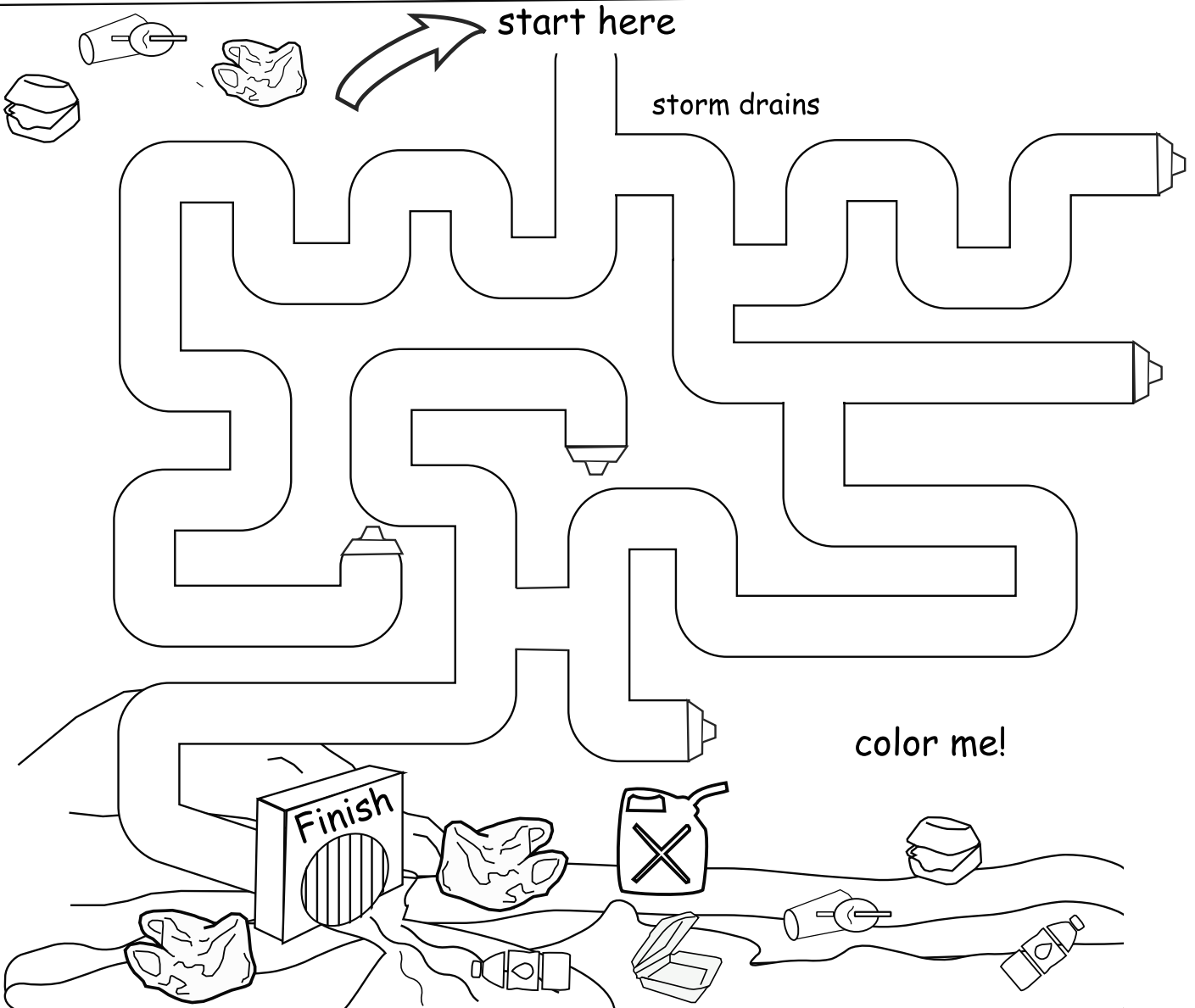
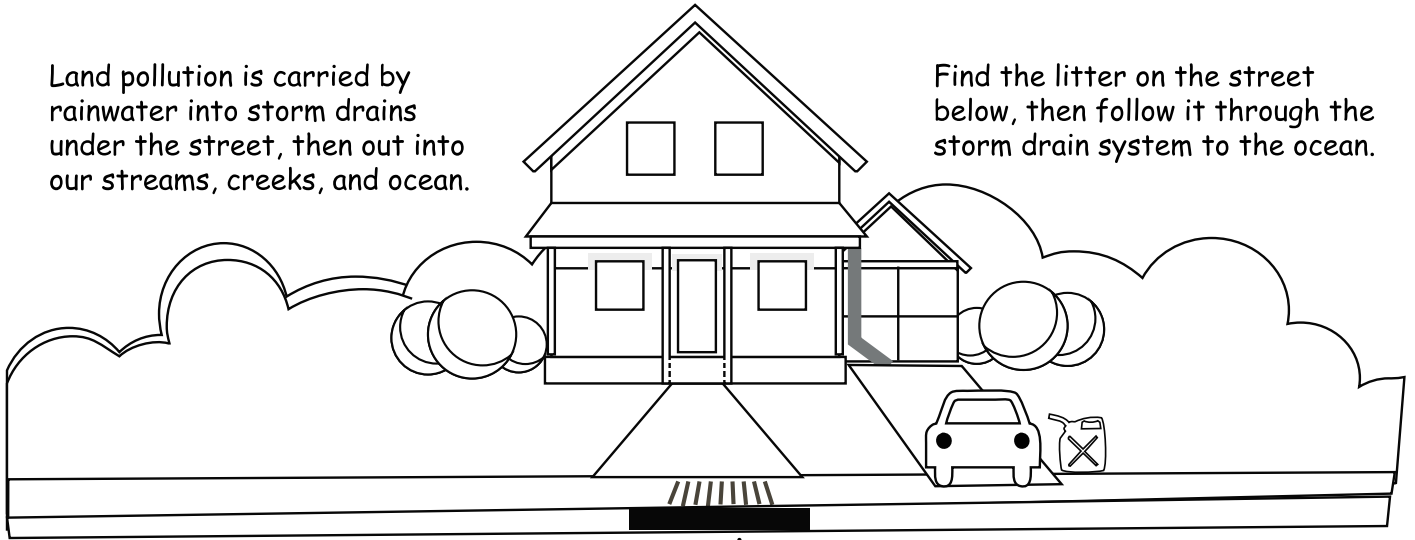


Name \_\_\_\_\_

# The Storm Drain Maze

Land pollution is carried by rainwater into storm drains under the street, then out into our streams, creeks, and ocean.

Find the litter on the street below, then follow it through the storm drain system to the ocean.



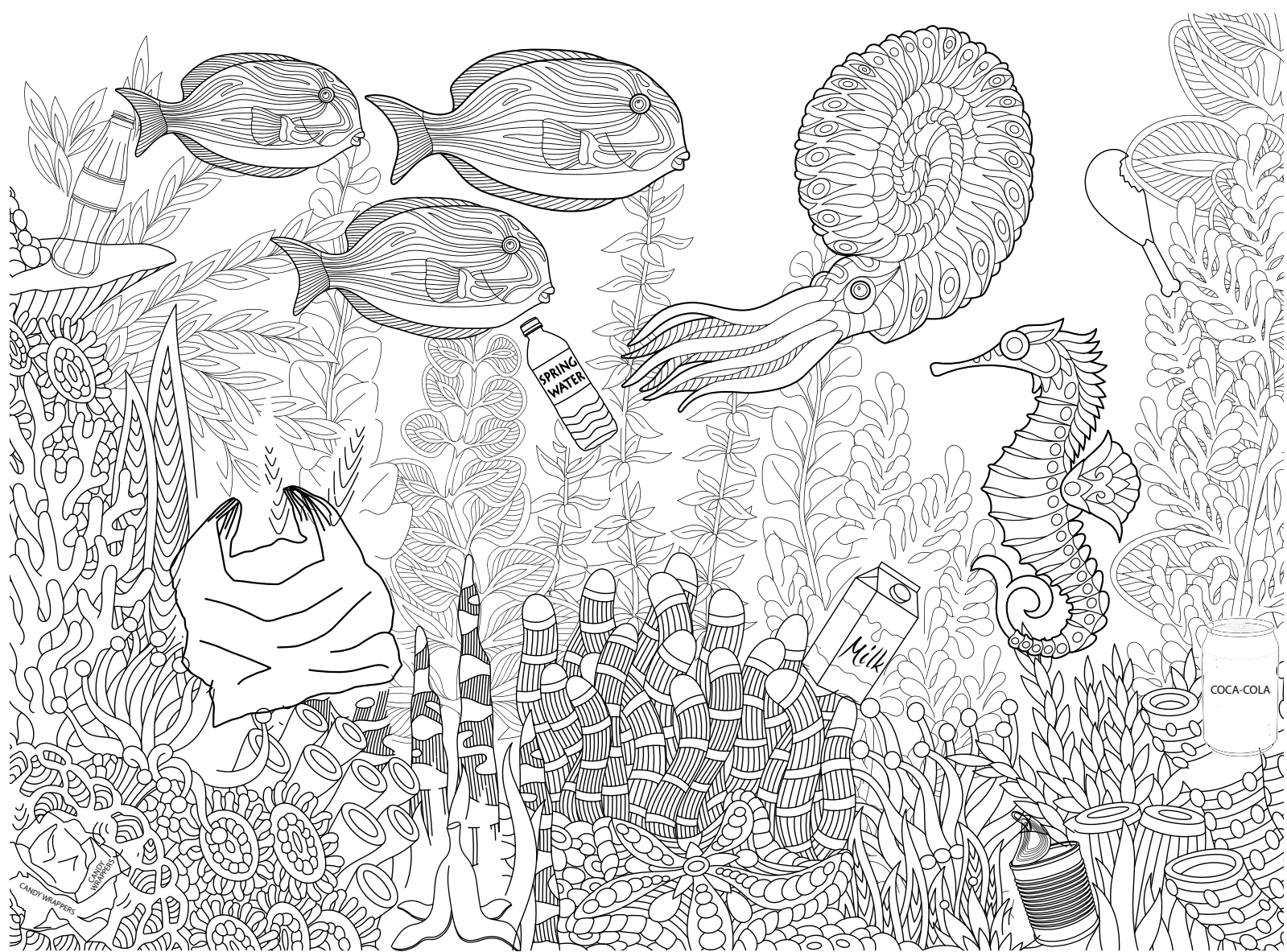
Name \_\_\_\_\_

# Our Actions Make A Difference

You've learned how, in our day-to-day activities, we can cause pollutants to enter into our storm drains and creeks without knowing that we are harming the environment. That's right—pollution on the ground can be washed into local waterways that lead to the ocean. You can do your part by recycling what you can, and throwing the rest in the trash.

Find hidden things in the picture below that don't belong in the ocean. How many can you count? \_\_\_\_\_

Now color the picture!



Name \_\_\_\_\_

# A Solution To The Pollution

Match the pollution source with the solution by drawing a line:



Never use before it's suppose to rain. Rainwater can wash the chemicals into storm drains that lead to local streams, rivers, and eventually, to the ocean.



Volunteer at a cleanup day event at your local waterway.



Use a broom to sweep up the debris and place in the trash instead of washing off sidewalks. This will help prevent ocean pollution and save water.



Recycle them so they can be reused.



Pick up after your pet and dispose of it in the trash.



Place them in the trashcan. Do not litter!



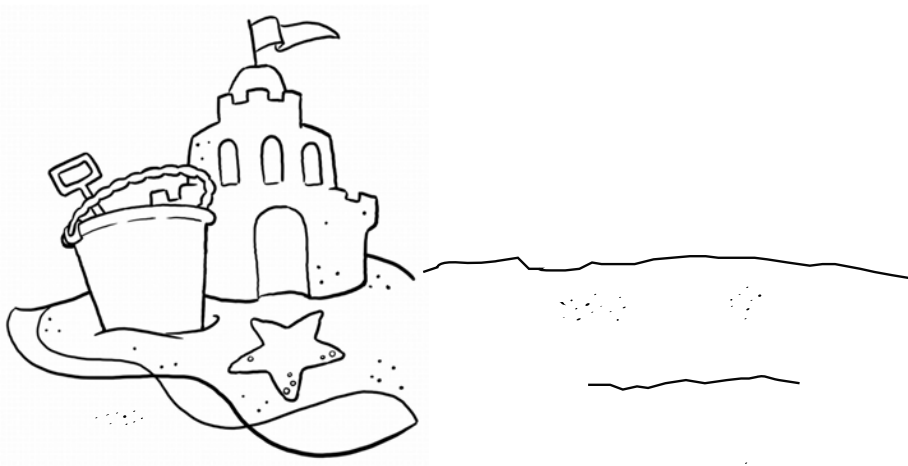
Recycle at an auto parts store or local gas station to prevent pollution that can be toxic to people and marine life.



Name \_\_\_\_\_

# Clean Beaches. Clean Ocean.

Draw yourself having fun on a clean beach!



color me!



Name \_\_\_\_\_

# Word Scramble: The Water Cycle

## Directions:

Below are statements about the Water Cycle. See if you can fill-in-the-blanks by unscrambling the words at the bottom of this page and placing them correctly in the sentences.

## Messages:

1. Did you know that the Water Cycle is also known as the “\_\_\_\_\_ Cycle”?
2. The sun heats up the \_\_\_\_\_ of the water in our rivers, lakes and oceans. When this happens, some of the water \_\_\_\_\_ into the air.
3. As water \_\_\_\_\_ rises up high into the sky, it cools and \_\_\_\_\_ to form clouds. When the water \_\_\_\_\_ in the clouds become too big and heavy for the air to hold them, they fall back down to the earth’s surface as rain, snow, hail or sleet. This is called \_\_\_\_\_.
4. The \_\_\_\_\_ is either absorbed into the \_\_\_\_\_ or flows overland as runoff into our \_\_\_\_\_, lakes and oceans – from where it will eventually evaporate back into the air. \_\_\_\_\_ can also come from \_\_\_\_\_ packs that thaw and melt in the spring.
5. Some water \_\_\_\_\_ into the ground through cracks and pores in soil and rocks until it reaches the \_\_\_\_\_ and becomes \_\_\_\_\_.

## Scrambled Words:

Sureafc uornff \_\_\_\_\_

dgroawtrenu \_\_\_\_\_

pssee \_\_\_\_\_

otpinepitacir \_\_\_\_\_

seseonncd \_\_\_\_\_

terdospl \_\_\_\_\_

oswn \_\_\_\_\_

vproa \_\_\_\_\_

taaproesev \_\_\_\_\_

airn \_\_\_\_\_

ruodng \_\_\_\_\_

etarputmeer \_\_\_\_\_

Hldcogroyi \_\_\_\_\_

wtrae ateb \_\_\_\_\_

tmaerss \_\_\_\_\_

Name \_\_\_\_\_

# Word Scramble: Protecting Our Watershed

## Directions:

Below are messages with some words about our watershed, why it's important and ways you can protect it. See if you can fill-in-the-blanks by unscrambling the words at the bottom of this page and placing them correctly in the sentences.

## Messages:

1. A watershed consists of \_\_\_\_\_ water like lakes, streams, \_\_\_\_\_, and wetlands. It also includes all the water that is stored underground in \_\_\_\_\_.
2. We live in the \_\_\_\_\_ Watershed. It is the largest watershed in Southern California, covering nearly 3,000 square miles of \_\_\_\_\_, foothills and \_\_\_\_\_. It has 50 \_\_\_\_\_ like creeks and streams called "\_\_\_\_\_."
3. Watersheds support \_\_\_\_\_ for plants and \_\_\_\_\_, and provide \_\_\_\_\_ water for people and wildlife.
4. When it rains, storm drains carry \_\_\_\_\_ to our creeks, streams and eventually the ocean without any \_\_\_\_\_ or cleaning.
5. Since \_\_\_\_\_ on the ground can be washed into local \_\_\_\_\_ and our \_\_\_\_\_, it's important we do our part to \_\_\_\_\_ our watershed from pollution.
6. One simple way is to not \_\_\_\_\_ and \_\_\_\_\_ what we can, like soda cans. We should always \_\_\_\_\_ the \_\_\_\_\_, by picking up after our pets.

## Scrambled Words:

cfureas _____	tbthiaa _____	aStan Aan _____
eovrsrisre _____	msalian _____	otmsr diansr _____
arfeuqis _____	kgirndin _____	tayewwsra _____
nutmiosna _____	tmratowres _____	tcptroe _____
ayvlles _____	intfregil _____	rletit _____
benschar _____	ppoo _____	ee cylrc _____
tibrutaires _____	atlpntsuo _____	ocsop _____

Name \_\_\_\_\_

# Word Search: The Water Cycle

## Directions:

The words listed to the right of the puzzle are hidden in the word search. Please find each word\* and then explain to your classmates how these words are related to the Water Cycle.

L	S	P	F	B	G	N	G	E	Q	I	D	A	E	Z	HYDROLOGIC
S	T	E	M	P	E	R	A	T	U	R	E	R	V	B	TEMPERATURE
T	M	A	U	D	I	G	W	E	G	Y	J	A	A	H	EVAPORATE
R	M	P	M	M	F	Z	B	F	E	D	R	I	P	J	VAPOR
E	X	B	Q	F	D	A	V	F	R	O	R	N	O	R	RAIN
A	N	L	T	G	M	M	O	F	C	V	N	T	R	U	RUNOFF
M	Q	H	Y	D	R	O	L	O	G	I	C	Z	A	N	GROUNDWATER
P	R	E	C	I	P	I	T	A	T	I	O	N	T	O	STREAM
V	E	R	R	E	X	M	Z	S	D	E	V	F	E	F	PRECIPITATION
A	U	Y	Z	O	A	X	X	L	H	I	R	E	N	F	SNOW
P	Z	R	K	P	U	O	P	D	U	Y	E	Z	N	M	
O	B	G	R	O	U	N	D	W	A	T	E	R	B	N	
R	V	K	M	E	G	A	O	I	Q	V	Y	W	U	O	
F	O	I	Y	U	F	N	C	B	M	J	C	Y	Z	I	
J	Y	E	D	H	S	N	O	B	Q	S	B	S	Y	F	

\*Words are placed vertically, horizontally, diagonally, but only forward.

Name \_\_\_\_\_

# Word Search: What is a Watershed?

## Directions:

The words listed to the right of the puzzle are hidden in the word search. Please find each word\* and then explain to your classmates how these words are related to water quality.

R	D	B	H	I	O	Z	M	G	B	B	E	E	X	L
D	M	A	P	A	D	L	N	O	B	N	F	P	S	P
L	E	Q	L	O	B	B	G	Q	P	I	S	Y	D	W
N	G	U	N	O	Q	I	G	A	L	N	K	V	M	S
R	C	I	R	C	M	Z	T	D	I	Y	B	Y	V	T
A	I	F	G	E	B	J	L	A	D	R	D	W	W	R
I	P	E	L	A	Y	I	T	F	T	I	U	W	C	E
M	K	R	A	N	W	N	G	Z	H	O	O	J	J	A
P	T	R	I	B	U	T	A	R	I	E	S	F	L	M
F	W	K	L	O	F	A	O	P	E	U	T	U	F	S
H	E	W	M	N	C	F	B	V	A	L	L	E	Y	S
Q	V	E	T	S	C	R	S	U	R	F	A	C	E	B
Z	Z	J	G	H	D	L	H	F	L	G	J	Q	S	Y
U	W	W	E	T	L	A	N	D	S	V	L	W	B	D
R	E	S	E	R	V	O	I	R	S	J	F	N	W	B

SURFACE  
RESERVOIRS  
WETLANDS  
AQUIFER  
MOUNTAINS  
VALLEYS  
OCEAN  
TRIBUTARIES  
HABITAT

\*Words are placed vertically, horizontally, diagonally, but only forward.

# Answer Key

# Answer Key

## Word Scramble: The Water Cycle

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Below are statements about the Water Cycle. See if you can fill-in-the-blanks by unscrambling the words at the bottom of this page and placing them correctly in the sentences.

### Messages:

1. Did you know that the Water Cycle is also known as the “Hydrologic Cycle”?
2. The sun heats up the temperature of the water in our rivers, lakes and oceans. When this happens, some of the water evaporates into the air.
3. As water vapor rises up high into the sky, it cools and condenses to form clouds. When the water droplets in the clouds become too big and heavy for the air to hold them, they fall back down to the earth’s surface as rain, snow, hail or sleet. This is called precipitation.
4. The rain is either absorbed into the ground or flows overland as runoff into our streams, lakes and oceans – from where it will eventually evaporate back into the air. Surface runoff can also come from snow packs that thaw and melt in the spring.
5. Some water seeps into the ground through cracks and pores in soil and rocks until it reaches the water table and becomes groundwater.

### Scrambled Words:

Sureafc uornff \_\_\_\_\_ Surface \_\_\_\_\_ runoff \_\_\_\_\_

pssee \_\_\_\_\_ seeps \_\_\_\_\_

seseonncd \_\_\_\_\_ condenses \_\_\_\_\_

oswn \_\_\_\_\_ snow \_\_\_\_\_

taaproesev \_\_\_\_\_ evaporates \_\_\_\_\_

ruodng \_\_\_\_\_ ground \_\_\_\_\_

Hldcogroyi \_\_\_\_\_ Hydrologic \_\_\_\_\_

tmaerss \_\_\_\_\_ streams \_\_\_\_\_

dgroawtrenu \_\_\_\_\_ groundwater \_\_\_\_\_

otpinepitacir \_\_\_\_\_ precipitation \_\_\_\_\_

terdospl \_\_\_\_\_ droplets \_\_\_\_\_

vproa \_\_\_\_\_ vapor \_\_\_\_\_

airn \_\_\_\_\_ rain \_\_\_\_\_

etarputmeer \_\_\_\_\_ temperature \_\_\_\_\_

wtrae ateb \_\_\_\_\_ water \_\_\_\_\_ table \_\_\_\_\_



# Answer Key

## Word Scramble: Protecting Our Watershed

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Below are messages with some words about our watershed, why it's important and ways you can protect it. See if you can fill-in-the-blanks by unscrambling the words at the bottom of this page and placing them correctly in the sentences.

### Messages:

1. A watershed consists of surface water like lakes, streams, reservoirs, and wetlands. It also includes all the water that is stored underground in aquifers.
2. We live in the Santa Ana Watershed. It is the largest watershed in Southern California, covering nearly 3,000 square miles of mountains, foothills and valleys. It has 50 branches like creeks and streams called "tributaries."
3. Watersheds support habitat for plants and animals, and provide drinking water for people and wildlife.
4. When it rains, storm drains carry stormwater to our creeks, streams and eventually the ocean without any filtering or cleaning.
5. Since pollutants on the ground can be washed into local storm drains and our waterways, it's important we do our part to protect our watershed from pollution.
6. One simple way is to not litter and recycle what we can, like soda cans. We should always scoop the poop, by picking up after our pets.

### Scrambled Words:

cfureas \_\_\_\_\_ surface \_\_\_\_\_

tbthiaa \_\_\_\_\_ habitat \_\_\_\_\_

aStan Aan \_\_\_\_\_ Santa \_\_\_\_\_ Ana \_\_\_\_\_

eovrsrisre \_\_\_\_\_ reservoirs \_\_\_\_\_

msalian \_\_\_\_\_ animals \_\_\_\_\_

otmsr diansr \_\_\_\_\_ storm \_\_\_\_\_ drains \_\_\_\_\_

arfeuqis \_\_\_\_\_ aquifers \_\_\_\_\_

kgirndin \_\_\_\_\_ drinking \_\_\_\_\_

tayewwsra \_\_\_\_\_ waterways \_\_\_\_\_

nutmiosna \_\_\_\_\_ mountains \_\_\_\_\_

tmratowres \_\_\_\_\_ stormwater \_\_\_\_\_

tcptroe \_\_\_\_\_ protect \_\_\_\_\_

ayvlles \_\_\_\_\_ valleys \_\_\_\_\_

intfregil \_\_\_\_\_ filtering \_\_\_\_\_

rletit \_\_\_\_\_ litter \_\_\_\_\_

benschar \_\_\_\_\_ branches \_\_\_\_\_

ppoo \_\_\_\_\_ poop \_\_\_\_\_

eecylrc \_\_\_\_\_ recycle \_\_\_\_\_

tibrutaires \_\_\_\_\_ tributaries \_\_\_\_\_

atlpntsuo \_\_\_\_\_ pollutants \_\_\_\_\_

ocsop \_\_\_\_\_ scoop \_\_\_\_\_

# Answer Key

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L	S	P	F	B	G	N	G	E	Q	I	D	A	E	Z	HYDROLOGIC
S	T	E	M	P	E	R	A	T	U	R	E	R	V	B	TEMPERATURE
T	M	A	U	D	I	G	W	E	G	Y	J	A	A	H	EVAPORATE
R	M	P	M	M	F	Z	B	F	E	D	R	I	P	J	VAPOR
E	X	B	Q	F	D	A	V	F	R	O	R	N	O	R	RAIN
A	N	L	T	G	M	M	O	F	C	V	N	T	R	U	RUNOFF
M	Q	H	Y	D	R	O	L	O	G	I	C	Z	A	N	GROUNDWATER
P	R	E	C	I	P	I	T	A	T	I	O	N	T	O	STREAM
V	E	R	R	E	X	M	Z	S	D	E	V	F	E	F	PRECIPITATION
A	U	Y	Z	O	A	X	X	L	H	I	R	E	N	F	SNOW
P	Z	R	K	P	U	O	P	D	U	Y	E	Z	N	M	
O	B	G	R	O	U	N	D	W	A	T	E	R	B	N	
R	V	K	M	E	G	A	O	I	Q	V	Y	W	U	O	
F	O	I	Y	U	F	N	C	B	M	J	C	Y	Z	I	
J	Y	E	D	H	S	N	O	B	Q	S	B	S	Y	F	

\*Words are placed vertically, horizontally, diagonally, but only forward.

# Answer Key

## Word Search: What is a Watershed?

### Directions:

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R	D	B	H	I	O	Z	M	G	B	B	E	E	X	L	
D	M	A	P	A	D	L	N	O	B	N	F	P	S	P	SURFACE
L	E	Q	L	O	B	B	G	Q	P	I	S	Y	D	W	RESERVOIRS
N	G	U	N	O	Q	I	G	A	L	N	K	V	M	S	WETLANDS
R	C	I	R	C	M	Z	T	D	I	Y	B	Y	V	T	AQUIFER
A	I	F	G	E	B	J	L	A	D	R	D	W	W	R	MOUNTAINS
I	P	E	L	A	Y	I	T	F	T	I	U	W	C	E	VALLEYS
M	K	R	A	N	W	N	G	Z	H	O	O	J	J	A	OCEAN
P	T	R	I	B	U	T	A	R	I	E	S	F	L	M	TRIBUTARIES
F	W	K	L	O	F	A	O	P	E	U	T	U	F	S	HABITAT
H	E	W	M	N	C	F	B	V	A	L	L	E	Y	S	
Q	V	E	T	S	C	R	S	U	R	F	A	C	E	B	
Z	Z	J	G	H	D	L	H	F	L	G	J	Q	S	Y	
U	W	W	E	T	L	A	N	D	S	V	L	W	B	D	
R	E	S	E	R	V	O	I	R	S	J	F	N	W	B	

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*Presented by*

