

ARE YOU REALLY GONNA DRINK THAT?

A STUDY OF HOW RISK PERCEPTIONS ALIGN WITH ACTUAL WATER QUALITY AND HOW DO INDIVIDUALS DEAL WITH THOSE PERCEIVED RISKS

BUT, WHY CARE ABOUT WATER?

Water is scarce global commodity. It is easily contaminated and can serve as a vector for water borne disease when left untreated. Treatment comes in two forms, individual action or government mandated (municipal treatment).

WATER IS A HUMAN RIGHT

“The human right to water is indispensable for leading a healthy life in human dignity.”

– United Nations, 2003

MUNICIPAL SCHEME: PORTLAND, OR

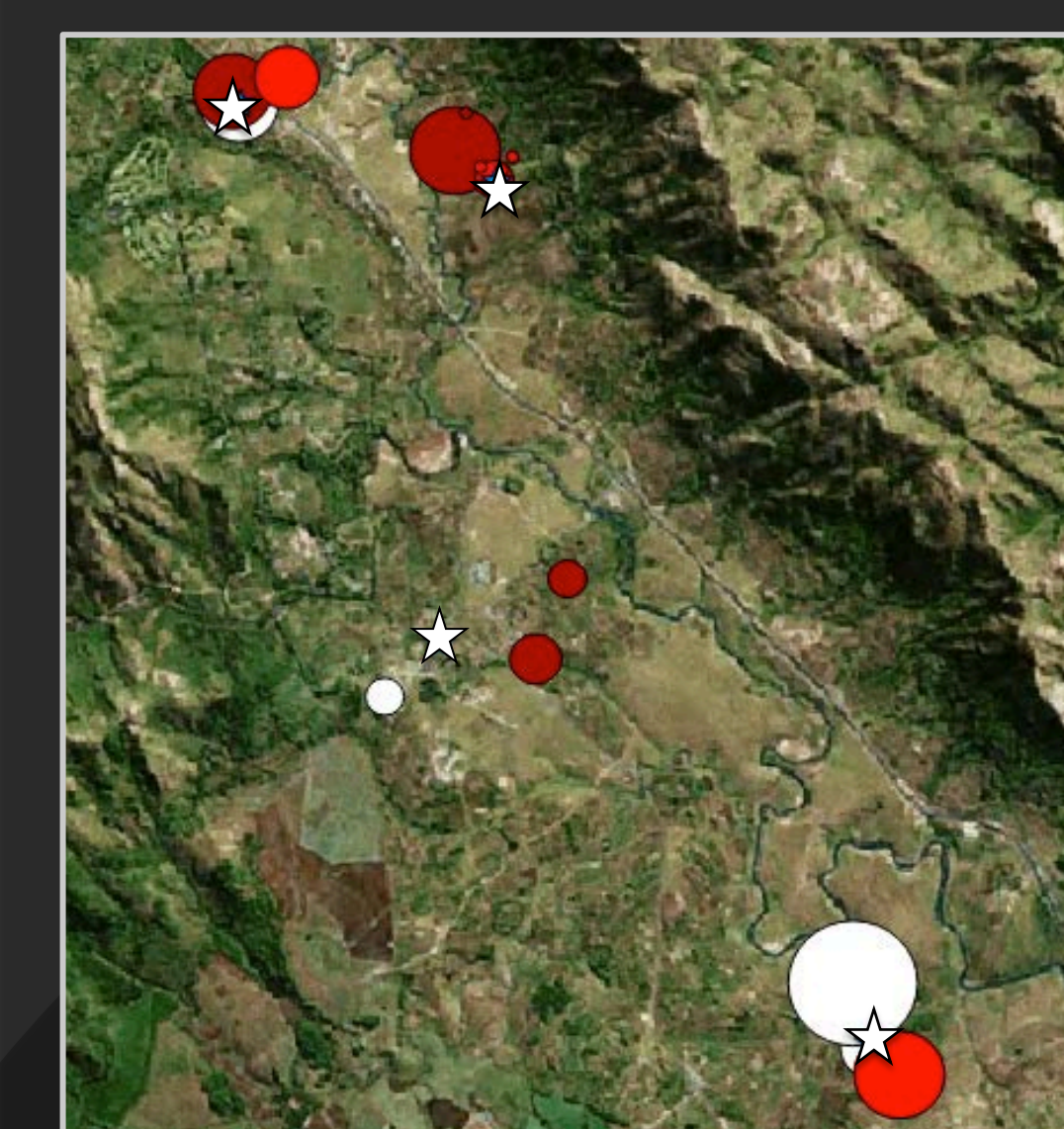
THE BULL RUN WATERSHED



The Portland Water Bureau supplies Portland with Bull Run water. The water is minimally treated and has never had contamination issues

INDIVIDUAL SCHEME: SWAZILAND

ACTUAL WATER QUALITY



Water Sources are **Contaminated**

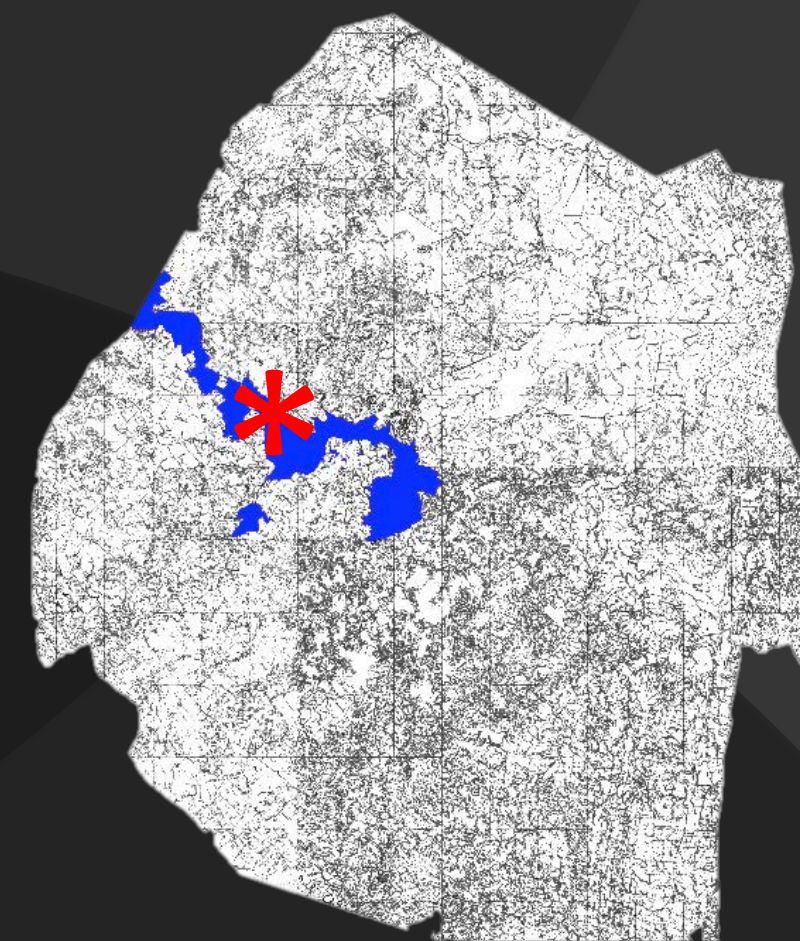
Size indicates number of users

Color indicates magnitude of contamination
High / Medium / Low

★ NCP locations

THE EZULWINI VALLEY

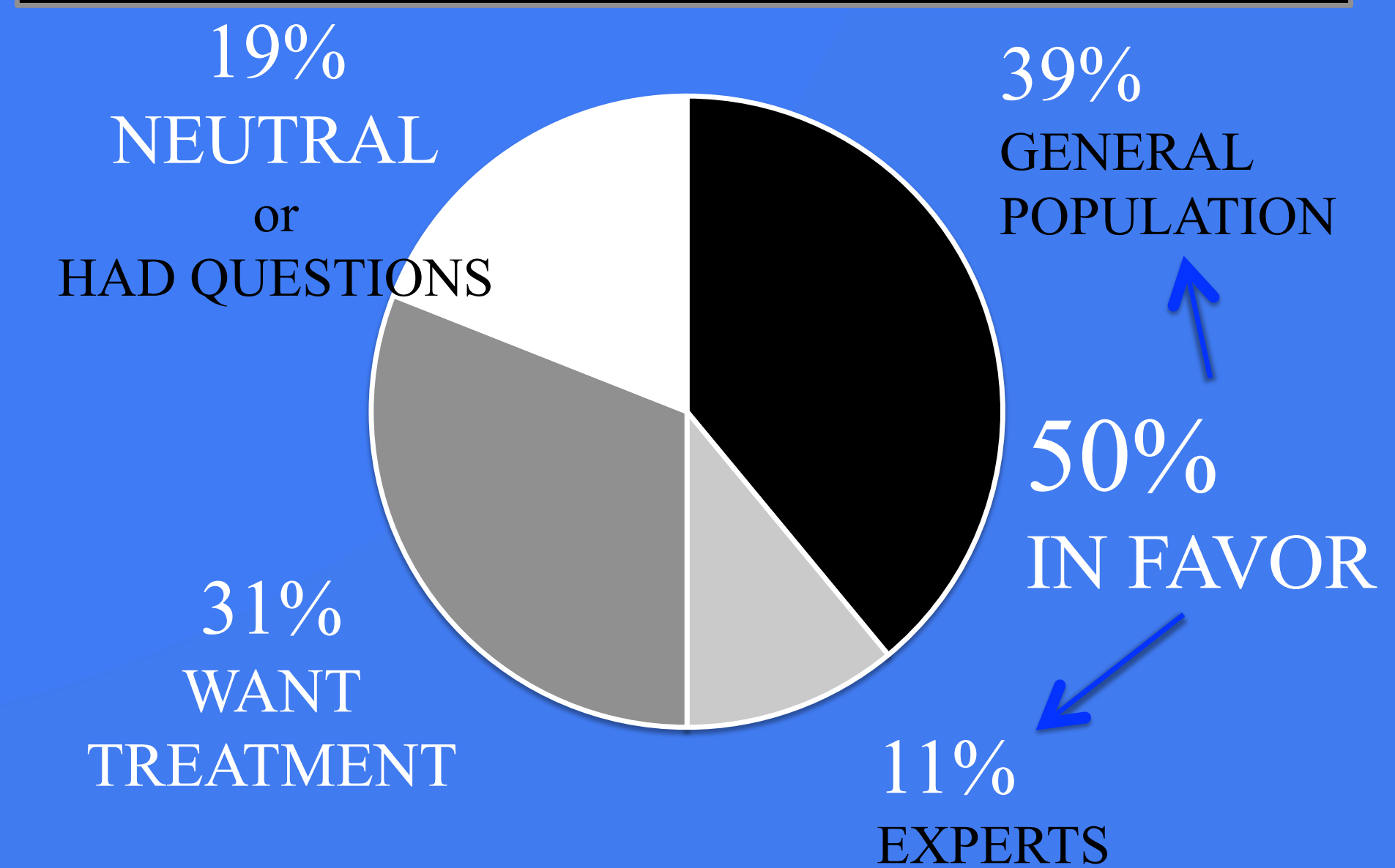
The valley (*) is a “peri-urban” area in Swaziland. It is a rapidly developing rural region home to a culturally rural but increasingly urban population.



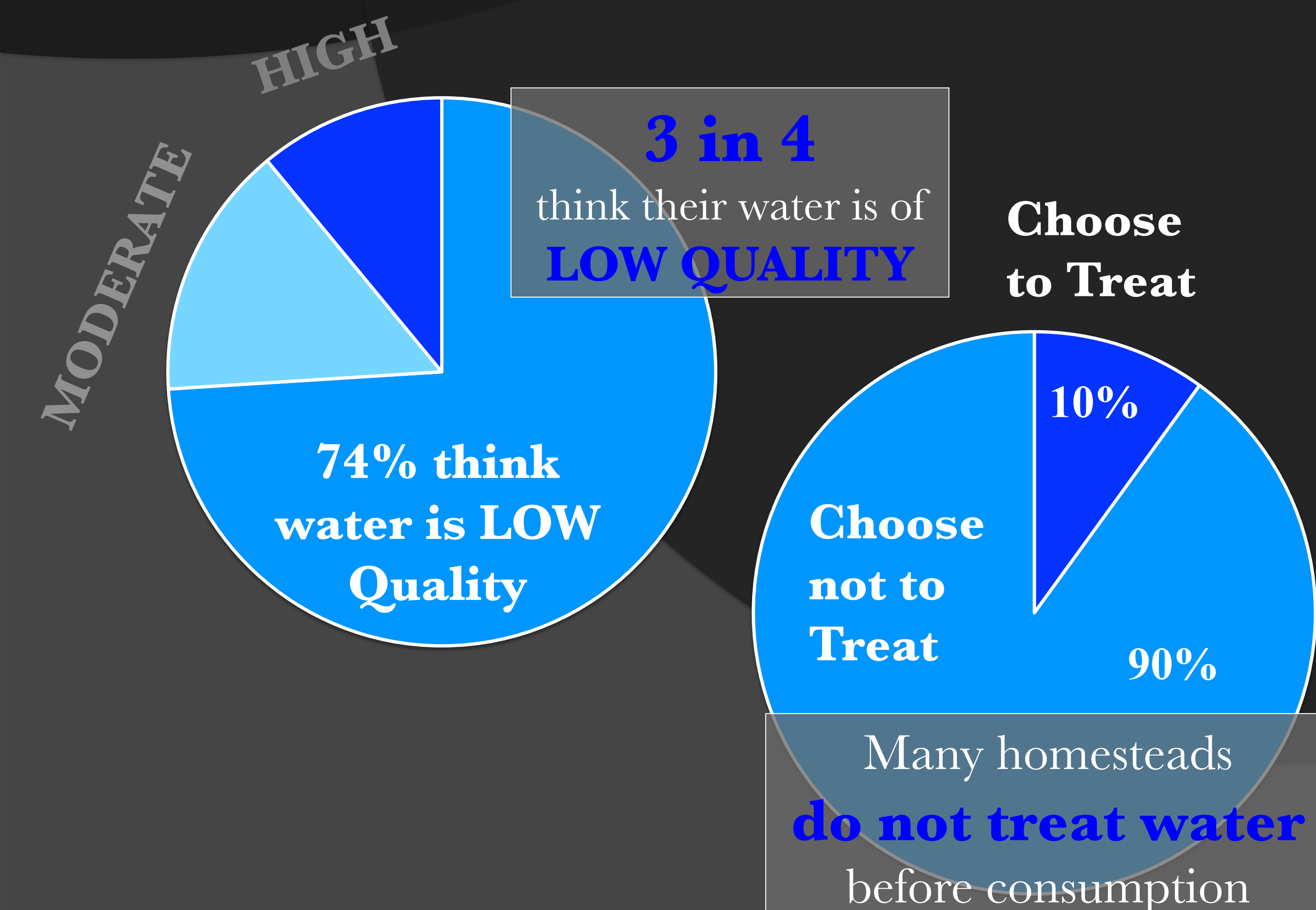
PORTLAND WATER BUREAU

The PWB treats and monitors water. They applied for a Grant of Variance (GoV) to maintain limited treatment Cryptosporidium. The EPA has required this treatment but it has never posed a threat in Portland’s water system.

OPINIONS ON THE GRANT



PERCEIVED WATER QUALITY



INFLUENCE ON ACTIONS

Choices about treatment are based on 4 factors:

Perception of Risk

People are only concerned if they think it is a problem.

Presentation of Information

THERE IS POISON IN THE TAP WATER.

Spin is just as influential as fact itself.

Expectations

Individuals are happy once expectations (whatever they may be) have been met.

Cost of Avoidance

Consumers are only willing to invest as much as they see fit.

Thirsty for More?



Dingfelder, Sadie (2004). "From toilet to tap: Psychologists lend their expertise to overcoming the public's aversion to reclaimed water." *American Psychological Association* 35:8 (September).
 Douglas, Mary (1966). *Purity and Danger: An Analysis of the Concepts of Pollution and Taboo*. New York: Routledge.
 Miller, Greg. "Getting Mind out of the Sewer: How human psychology gets in the way of sensible solutions to recycling wastewater." *Science* 337 (August 2012): 679-80.
 Novella, Steven. "Anti-Fluoride Propaganda as News." *Neurological Blog*. N.p., 27 July 2012. Web. 09 Apr. 2014.
 Palm, Risa (1990). *Natural Hazards*. Baltimore: Johns Hopkins UP, 1990. Print.
 Peter, Graciana (2009). "Impact of Rural Water Projects on Hygienic Behaviour in Swaziland." *Physics and Chemistry of the Earth* 35: 772-779.
 Portland Water Bureau (PWB 2014). Accessed March 16, 2014. <http://www.portlandoregon.gov/water/29343>.
 Proctor, James. "Household-Scale Environmental Health in the Ezulwini Valley, Swaziland." *African Journal of Environmental Science and Technology* (2014). n. pag. Web. 29 Mar. 2014.
 UNICEF (2011). "UNICEF – Water, Sanitation, and Hygiene." *UNICEF*. 2011. <http://www.unicef.org/wash/>.
 UNISDR (2007). *Drought, Desertification and Water Scarcity*. Geneva: United Nations, International Strategy for Disaster Reduction, 2007. Print.
 United Nations (2003). "General Comments Number 15." *Sustantive Issues Arising in the Implementation of the International Covenant on Economic, Social, and Cultural Rights*. Proc. of Economic and Social Council, Geneva. 20 Jan. 2003. Web.
 White, Richard (1999). "The Problem with Purity." *Tanner Lectures on Human Values*. Davis. 10 May 1999. Web.
 World Health Organization (2013a). *Research for Universal Health Coverage*. Rep. Geneva: World Health Organization, 2013. Print.
 World Health Organization (2013b). *World Health Statistics 2013: A Wealth of Information of Global Public Health*. Geneva: World Health Organization, 2013. Print.