# SUMMARY OF THE ALLEGAN COUNTY GROUND-WATER SURVEY RESULTS

LOCAL APPROACH

2/4/2021



#### HISTORY RECAP

- DECEMBER 2019; THE BOARD OF COMMISSIONERS AUTHORIZED PUBLIC HEALTH TO FULLY SCOPE A GROUND WATER STUDY
- JANUARY & FEBRUARY 2020; PREPARE DOCUMENTS FOR THE BOARD OF COMMISSIONERS AND COUNTY ADMINISTRATION
- MARCH 2020; THE BOARD OF COMMISSIONERS APPROVES THE GROUND WATER STUDY PROPOSAL PHASE 1
- APRIL DECEMBER 2020; MAGNET 4 WATER GROUND WATER STUDY (BIG PICTURE APPROACH)
- OCTOBER DECEMBER 2020; SEND AND COMPILE GROUND WATER SURVEY (LOCAL PICTURE APPROACH)



- THE ALLEGAN COUNTY HEALTH DEPARTMENT (ACHD) WORKED WITH RESEARCHERS TO DEVELOP A COMPREHENSIVE SURVEY FOR THE LOCAL APPROACH TO THE GROUND WATER STUDY
- THE ACHD RECEIVED INPUT FROM:
  - MAGNET FOR WATER
  - JOHN YELLICH-MICHIGAN GEOLOGICAL SURVEY
  - HEALTH OFFICER
  - ENVIRONMENTAL HEALTH TEAM
- THE QUALTRICS SURVEY PLATFORM WAS USED TO COMPILE DATA

#### SURVEY DISTRIBUTION

- DISTRIBUTED OUT ON SEPTEMBER 1, 2020 DECEMBER 31, 2020
  - FACEBOOK (HEALTH DEPARTMENT PAGE)
    - 2, 645 PEOPLE REACHED
    - 197 ENGAGEMENTS
    - 111 CLICKED ON THE LINK
  - MICHIGAN STATE COOPERATIVE EXTENSION
  - WELL DRILLERS
  - SEPTIC SYSTEM INSTALLERS
  - BUSINESSES
  - LOCAL UNITS OF GOVERNMENT (TOWNSHIPS, CITIES, VILLAGES, FIRE DEPARTMENTS, BUILDING DEPARTMENTS)
  - APPROXIMATELY 3000 PRIVATE CITIZENS/BUSINESSES REACHED
  - TOTAL: APPROXIMATELY 120 COMPLETED

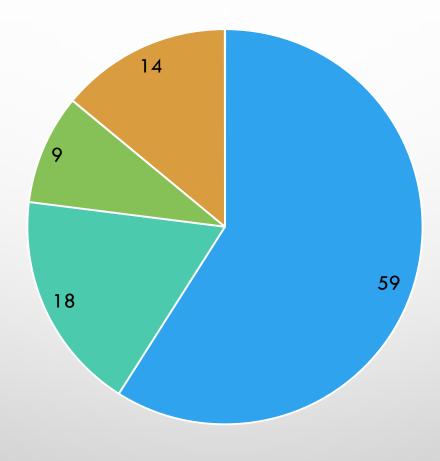
## RESPONDENTS

PRIVATE CITIZEN

BUSINESS (Agriculture, Well Drillers, Restaurants, etc.)

GOVERERNMENT (Townships, Fire Departments, etc.)

OTHER (Churches, Schools, etc.)



### **RESULTS: WATER QUALITY AWARE OF ISSUES:** LEE, OTSEGO, LAKETOWN, MANLIUS, ALLEGAN, OTSEGO, NOT HEATH, GUN PLAIN, **AWARE TASTE** WAYLAND, DORR, **ODOR OF ANY** FILLMORE, AND **ISSUES OVERISEL TOWNSHIPS** AWARE OF ISSUES NOT AWARE OF ISSUES TASTE ODOR

#### WATER QUANTITY ISSUES

AWARE OF WATERQUANTITYISSUES

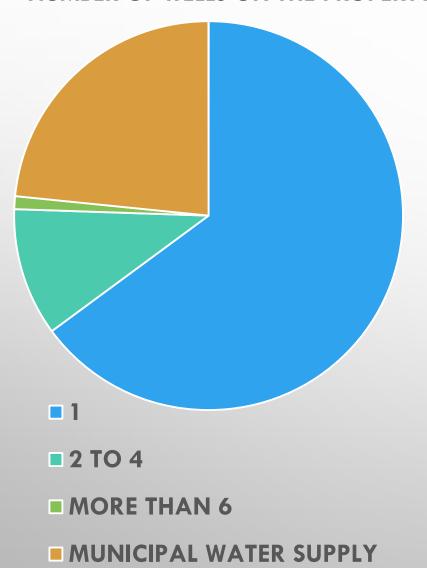
NOT
AWARE OF
WATER
QUANTITY
ISSUES

OTSEGO, HEATH, LEE, LEIGHTON, FILLMORE,

#### WELL INFORMATION



#### NUMBER OF WELLS USED FOR IRRIGATION



MOST OF THE WELLS

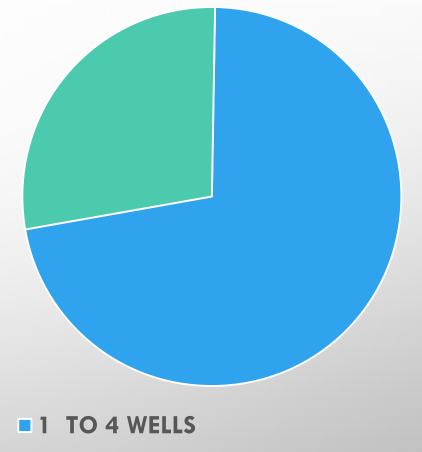
ARE USED FOR

HUMAN

CONSUMPTION AND

NOT FOR IRRIGATION

40% OF THE
IRRIGATION WELLS
PUMP BETWEEN
2,000 TO 10,000
GALLONS/DAY
FOR 4 UP TO 9
MONTHS OF THE
YEAR



DO NOT USE WELL FOR IRRIGATION

#### **INTERESTING FACTS**

- 100% SAID A SAFE AND SUFFICIENT WATER SUPPLY WAS IMPORTANT
- 71% ARE NOT SURE IF THERE WILL BE ENOUGH WATER INTO THE FUTURE
- 17% THINK ALLEGAN COUNTY WILL DEPLETE ITS GROUNDWATER SUPPLY WITHIN 25 200 YEARS
- 66% DO NOT KNOW WHAT A "WELL HEAD PROTECTION AREA" IS
- 75% OF THOSE DEVELOPING PLAN TO USE MUNICIPAL WATER
- 7% ARE PLANNING ON A DEVELOPING IN ALLEGAN COUNTY IN THE NEXT 10 YEARS IN WAYLAND, PLAINWELL, HOPKINS & LAKETOWN TOWNSHIPS

#### ITEMS TO CONSIDER MOVING FORWARD

- EDUCATION WILL BE VERY IMPORTANT
  - CONTAMINATION AREAS
  - WELL HEAD PROTECTION AREAS
- CONTINUE INVESTIGATION OF CONTAMINATED AREAS (EGLE)
- EXPAND THE MUNICIPAL WATER IF DEVELOPMENT IS IMPORTANT