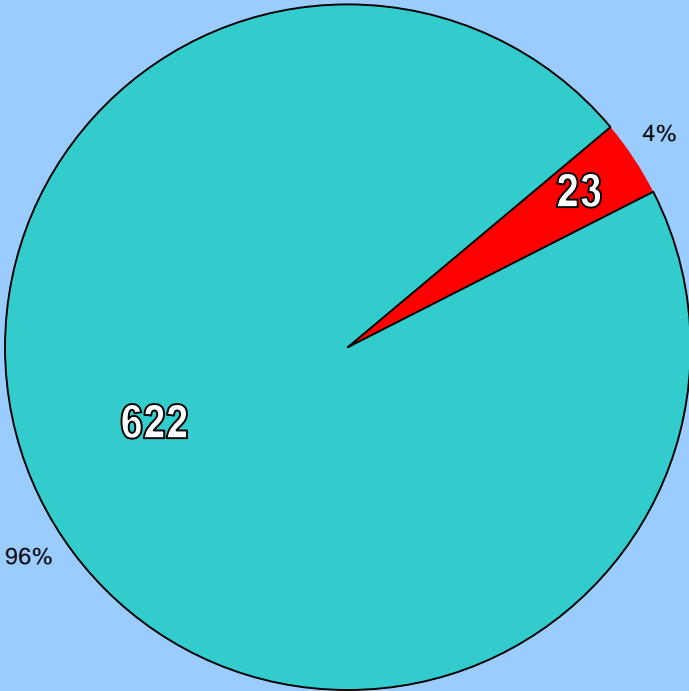


# What's the Problem?

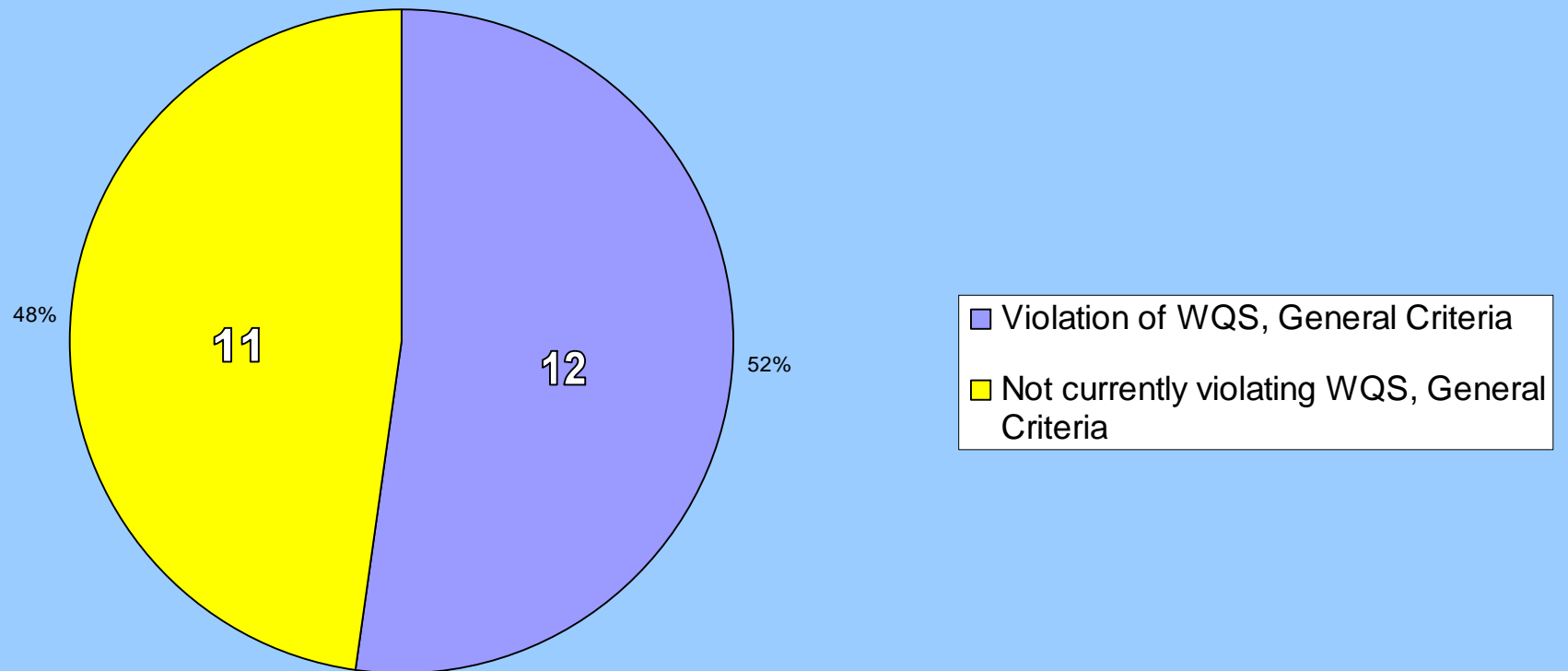
- 10 CSR 20-7.015(8)(B)3. requires that a Water Quality Impact Study be conducted before the technology based effluent limits for lagoons and trickling filters can be applied.
  - The Water Quality Impact Study is not defined in regulation.

**Chart 1**  
**Surveys of Receiving Streams**  
**Lagoons with flows less than 22,500**

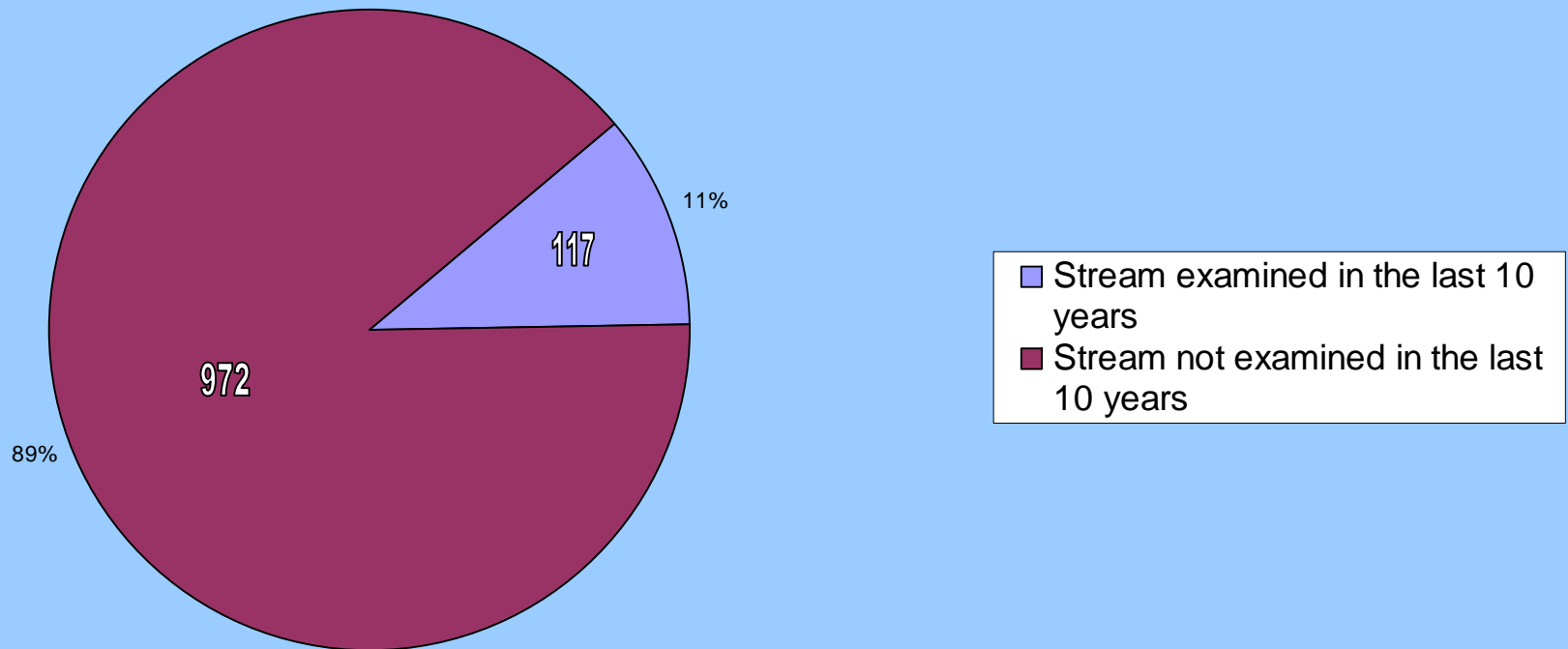


- Stream examined in the last 10 years
- Stream not examined in the last 10 years

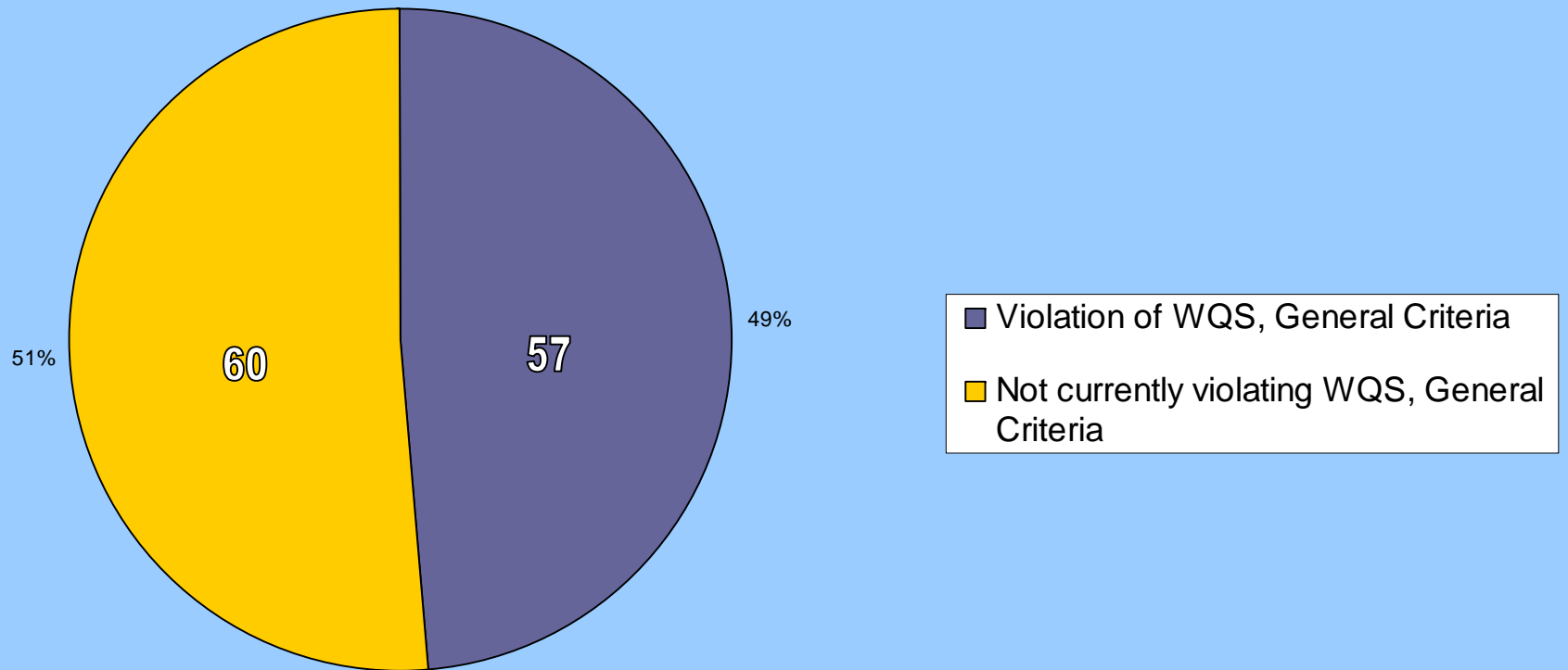
**Chart 2**  
**Percentage of observed receiving streams with general criteria violations**  
**Lagoons with flows less than 22,500**



**Chart 3**  
**Surveys of Receiving Streams**  
**Lagoons with flows less than 300,000**



**Chart 4**  
**Percentage of observed receiving streams with general criteria violations**  
**Lagoons with flows less than 300,000**



# Renewal of Existing Lagoons

- Follow outlined steps for processing renewal applications
  - Review Discharge Monitoring Report Data
  - Review any stream surveys or Water Quality Impact studies
  - Update effluent limits, retaining lagoon limits for BOD<sub>5</sub>, TSS & pH
  - Add instream monitoring at appropriate frequency

# Renewal of Existing Lagoons

- Review Discharge Monitoring Report Data
  - If the facility is not in compliance with existing effluent limits, the permit cannot be renewed without a schedule of compliance or Enforcement action
  - 644.051.1.(4)4.

# Renewal of Existing Lagoons

- Review any stream surveys or Water Quality Impact studies
  - If the existing discharge is causing an impact to water quality, such as violations of general or specific criteria, the permit cannot be renewed without a schedule of compliance.
  - If a Water Quality Impact Study has been submitted and approved, the permit could be renewed with existing limits for BOD<sub>5</sub>, TSS & pH



# Renewal of Existing Lagoons

- Update effluent limits, retaining lagoon limits for BOD<sub>5</sub>, TSS & pH
  - Include any other necessary Water Quality based effluent limits.

# Renewal of Existing Lagoons

- Add instream monitoring at appropriate frequency
  - As outlined in the lagoon renewal proposal, monitoring frequency is based on size of facility.
  - Instream monitoring is necessary for Ammonia, Dissolved Oxygen, Temperature, & pH.
  - The instream monitoring will serve as the Water Quality Impact Study.

# What Happens Next Time?

- The Department will evaluate the results of the instream monitoring. If there are no excursions from Water Quality Standards (WQS), the facility will have satisfied its requirement for a Water Quality Impact Study.
- If there are excursions from WQS, then further study or upgrades to the facility may be required.