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Shamrock Technologies

Henderson Working Group

PRESENTED FEBRUARY 28, 2022

Fast Facts

Quick refresh of key details & definitions

- What are PFAS?
- How are PFAS regulated?
- How prevalent are PFAS in our air, soil & drinking water?

Our drinking water is safe. PFAS levels well below health advisory levels – consistent with ambient levels in water across Kentucky

While currently unregulated, the EPA intends to propose an MCL for PFAS levels in drinking water in 2022

PFAS are not currently considered a hazardous pollutant by the Federal Air Act

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PFAS Reporting Chronology

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Initial Reporting and Actions

Dec 2018 – Jan 2019

- Discovery & disclosure to Kentucky DEP (KDEP)
- Cabinet identifies approach & specific actions
- Air and Water/Waste work groups formed

Approach

Testing wells and drinking water

Feb 2019 – March 2019

- KDEP sample Henderson North and South Water Treatment Plants
- KDEP collected water from six active privately owned wells within 1 mile radius of Shamrock facilities
- None of the samples exceeded the USEPA health advisory limit for PFAS in drinking water of 70 ppt

Key Concerns

Potential impacts to wells and drinking water

Evaluation and removal of in-ground tanks

Evaluation of air dispersion and off-site impacts

Evaluation & removal of in-ground tanks

Feb 2019 – May 2019

- KDEP conducted Site Visit
- Shamrock submitted a tank closure plan
- Tank removal project completed

Key Concerns

Potential impacts to wells and drinking water

Evaluation and removal of in-ground tanks

Evaluation of air dispersion and off-site impacts

Evaluation of air dispersion & off-site impacts

Mar 2019 – Sep 2019

- PFAS air emission sources tested
- Atmospheric deposition modeling

Key Concerns

Potential impacts to wells and drinking water

Evaluation and removal of in-ground tanks

Evaluation of air dispersion and off-site impacts

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On-Site Characterization Work

May 2019 – Oct 2019

- Shamrock submitted an On-Site Characterization Field Sampling and Analysis Plan (On-Site SCP)
- Shamrock representatives met with KDEP to present the results of the On-Site SCP

On-site characterization scope

Gather analytical and other data from each of the three Shamrock sites

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Identify potential impacts of PFAS compounds on environmental media

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Specifically related to soil, groundwater and surface water impacts

Off-Site Characterization Work – Phase 1

Nov 2019 – April 2021

- Shamrock submitted an Off-Site Characterization Field Sampling and Analysis Plan (Off-Site SCP)
- Access agreements
- COVID
- Shamrock presented results of the Off-Site SCP to KDEP

Off-site phase 1 scope

Gather analytical and other data

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Identify potential impacts of PFAS compounds on environmental media

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Specifically related to soil, groundwater and surface water impacts

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Off-Site Characterization Work – Phase 2

April 2021 – Feb 2022

- KDEP directs additional Off-Site characterization north of the facilities toward the Ohio River
- KDEP approved the Off-Site SCP Phase 2
- Phase 2 off-site sampling commenced on Feb 14, 2022

Off-site Phase 2 Scope

Gather additional analytical and other data as directed by KDEP

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Identify potential impacts of PFAS compounds on environmental media

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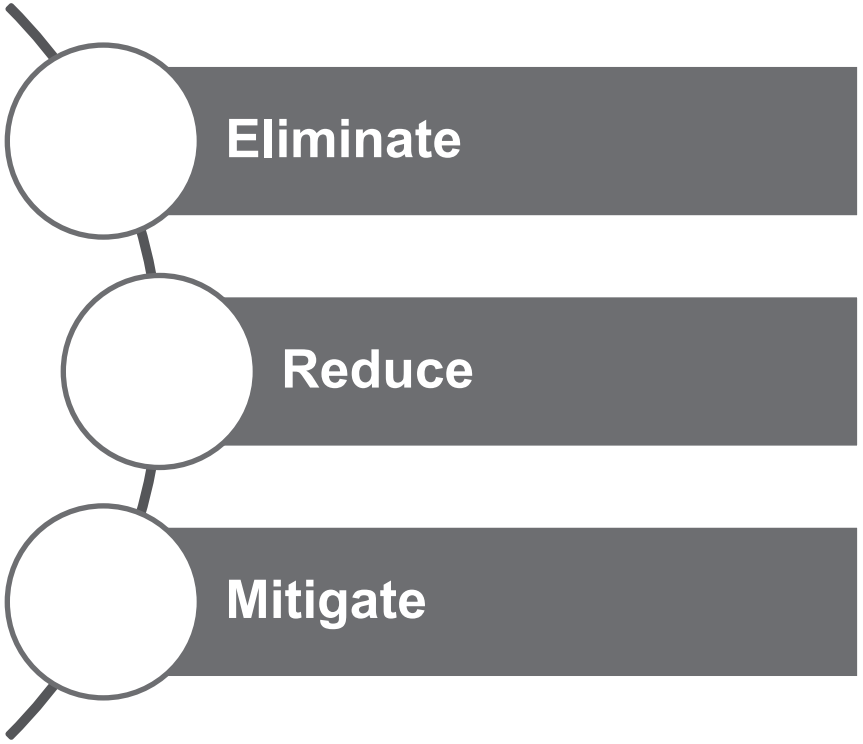
Specifically related to soil, groundwater and surface water impacts

Future Actions

2022

- Off-Site SCP findings to be presented to KDEP June 2022
- Site conceptual model based on results of on-site and off-site characterization reports

Site Conceptual Model



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Thank You For Your Attention!

Any Questions?

Please find us online for more information!
shamrocktechnologies.com/pfas-awareness-page/

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