

Toward Sustainability of Passive Treatment in Legacy Mining Watersheds

Operation Performance and System Maintenance

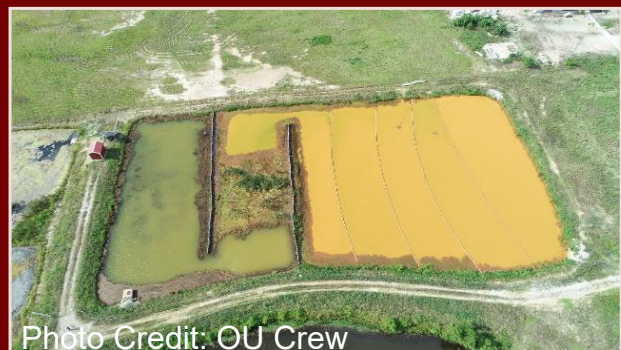
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Sustainability of Passive Treatment Wetlands

■ Administrative Perspective

- Sources of Funding
- Contracting Tools
- Legal Tools

■ Remedial Action and O&M



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How were these projects funded??

Mayer Ranch (2004)

- Remedial Action
 - “Oklahoma Plan”
 - EPA Wetland Program 104(b)(3)
- O&M
 - Petroleum Storage Tank Consolidation Act (17 O.S.327.1)

SE Commerce (2014)

- Remedial Action
 - Oklahoma Secretary of Energy and Environment (OSEE)
 - EPA Match
- O&M
 - Petroleum Storage Tank Consolidation Act (17 O.S.327.1)

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Implementation - Contracts

- Funding OU CREW
 - Interagency Agreement/Contract
 - RA and evaluation
 - O&M
 - Proposals, budgets, timelines, deliverables
- **Engaging Landowners**
 - Participation drives design
 - Compensation
 - MOA/MOU



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But Wait....



- Why doesn't DEQ just buy the land and eliminate having to engage landowners?
- Answer: DEQ (as an Agency) does not have authority to purchase land or own land.

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Implementation - RA

- Final Design and Construction
 - Project Management work
- Landowner Compensation (MOA/U)
 - Survey/Fence
 - Per acre rate
 - 30 years of taxes
 - % of value of land
 - Additional metrics



Photo credit: OU Crew

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Long Term Sustainability

- Conservation Easement - 60 O.S § 49.2(1)
 - Restrictive covenants
 - Outlined in MOA/MOU
 - Filed in County Courthouse
- Notice of Remediation – 27A O.S § 2-7-123(B)
- Uniform Environmental Covenants - 60 O.S § 49.14

CONSERVATION EASEMENT
AFFECTED PROPERTY:
[REDACTED] (OKLAHOMA 7484 (OTTAWA COUNTY))

THIS CONSERVATION EASEMENT (the "Easement") is executed pursuant to the Uniform Conservation Easement Act ("Act"), Title 60 Oklahoma Stat. ("O.S.") §§ 49.1 through 49.8, made by [REDACTED] ("Grantors"), in favor of the Oklahoma Department of Environmental Quality ("Grantee"). The Easement is created for the purposes set out below and consistent with "Conservation Easement" as defined in 60 O.S. § 49.2(1).

WHEREAS, Grantors are the sole owners of certain real property in Ottawa County, Oklahoma, more particularly described in Exhibit A attached hereto and incorporated herein by reference ("Property");

WHEREAS, within the boundaries of the Property is a passive treatment remediation system, more particularly described in Exhibit B attached hereto and incorporated herein by reference ("Affected Property");

WHEREAS, this Easement is limited to the Affected Property and includes Grantee's rights of ingress and egress, as well as contractors and consultants hired by Grantee, through the Property and across and into the Affected Property to ensure the ongoing operation, maintenance and protection of the Passive Treatment Remediation System on the Affected Property; and

WHEREAS, the Passive Treatment Remediation System located on the Affected Property was constructed for the purposes of improving and enhancing water quality that has been negatively impacted by contaminated mine water discharge caused by historical mining operations within the Tar Creek Superfund Site.

WHEREAS, the following Engineering Controls shall remain in place and must be maintained to ensure the effectiveness and protectiveness of the Passive Treatment Remediation System by Grantee or Grantee's contractors or consultants:

1. General operational maintenance of the Passive Treatment Remediation System,
2. Maintenance by removal and/or replacement of organic material from the Passive Treatment Remediation System ponds,
3. Maintenance of the limestone entrance road, and
4. Maintenance and repair of perimeter fence around the Passive Treatment Remediation System.

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Acknowledgements

- Continued Collaboration and Future Projects
 - OU CREW
 - Quapaw Nation
 - EPA
 - DEQ



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