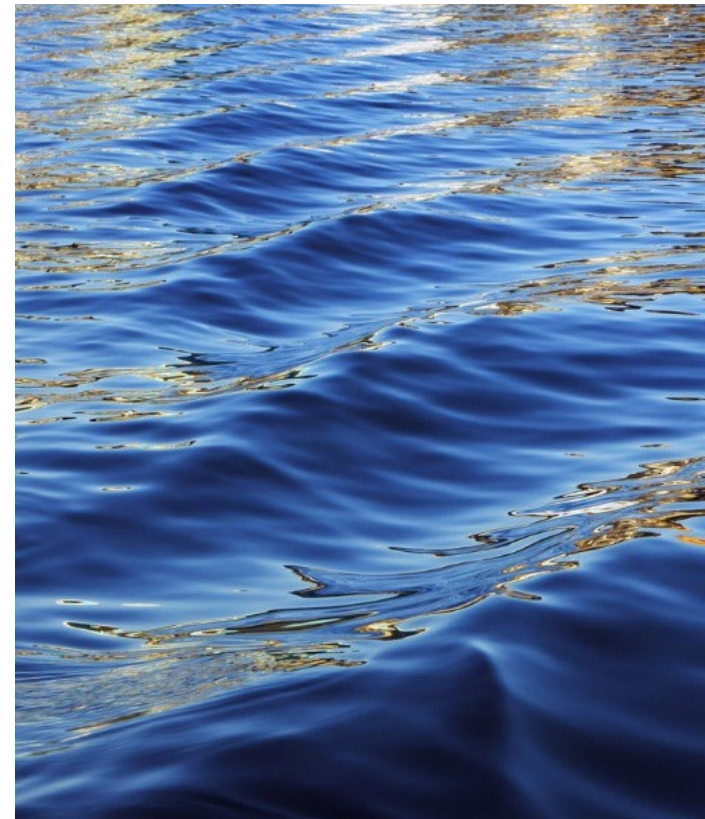




Common Construction Site Problems & How Solve Them

Oklahoma Department of Environmental Quality



Procedure

- DEQ desires compliance with our regulations for environmental protection and public health.
- Inspections are primarily driven by complaints but can also come from referrals, routine inspections, and environmental emergencies.
- Initial inspection- 14 days to comply
- Non-Compliance will result in Notice of Violation (NOV)
- Continued Non-Compliance will require a Consent Order (administrative penalty)
- Settlement Conferences if requested by permittee: frank and honest discussion

Most Common Problems

- Failure to implement temporary or final stabilization (dust generation).
 - “Fugitive dust” is an air quality term.
- Best Management Practices (BMPs) not properly installed and/ or maintained.
- Renewal Notice of Intent (NOIs) not submitted for coverage under the 2022 OKR10 General Permit.



Problem: Stabilization (Dust Generation)

- Many construction sites, especially residential development sites, disturb large amounts of land at a single time.
- Development gets delayed for some reason and construction activity ceases.
- A large bare area of land is left exposed to stormwater, discharging large amounts of sediment of site during rainy seasons and creating dust issues during dry seasons.



Solution: Stabilization (Dust Generation)

- The biggest contributors to dust generation, is unmanned construction sites that have not properly implemented stabilization measures.
 - OKR10 States, "Initiate the installation of stabilization measures immediately in any disturbed areas on any portion of the site where construction activities have permanently ceased or will be temporarily inactive for 14 or more calendar days. 2. Complete the installation of stabilization measures as soon as practicable, but no later than 14 calendar days after stabilization measures have been initiated, or seven calendar days if you discharge from a high priority construction site."



Solution: Stabilization (Dust Generation)- Continued

- If dust remains an issue during active construction, water trucks or other dust suppression techniques should be used to prevent pollutants from being discharge into surface waters.



Problem: BMP Implementation & Maintenance

- Improperly installed and managed BMPs is the most common problem found during construction inspections.
- Often installed and then forgotten.



Problem: BMP Implementation & Maintenance (Continued)

- They are often not installed within the requirements listed in their design plan and Stormwater Pollution Prevention Plan (SWP₃).



Solution: BMP Implementation & Maintenance

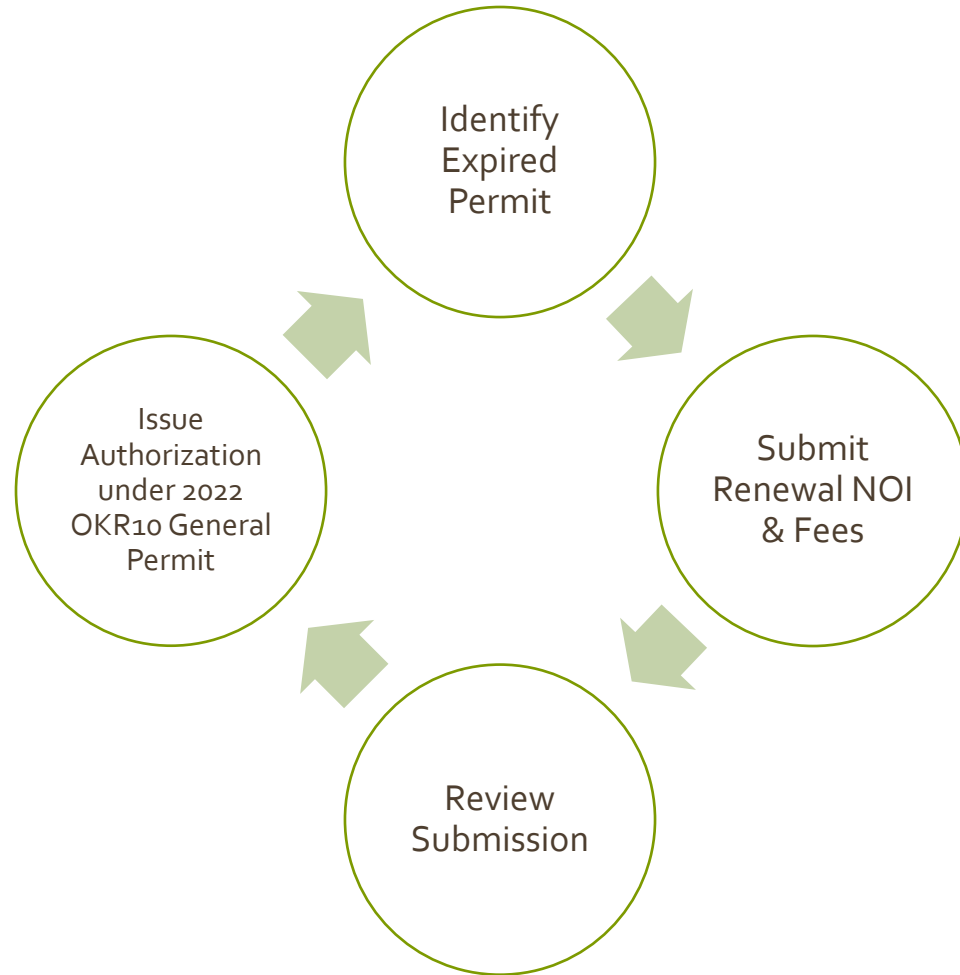
- Maintaining regular inspections of BMPs at the construction site and identifying problems when they arise is the best way to ensure that all BMPs are properly installed and maintained.
- OKR10 Permit states, “All control measures must be properly selected, installed, and maintained in accordance with the manufacturer’s specifications and good engineering practices. If periodic inspections or other information indicates a control has been used inappropriately or incorrectly, the permittee must replace or modify the control for site situations”
- Inspection reports should be thorough and document any deficiencies found and note corrective actions that are needed.

Problem: OKR10 Renewals

- The 2017 OKR10 General Permit expired on October 17, 2022 and the 2022 OKR10 General Permit going into effect on October 18, 2022 (modified effective date of April 1, 2023)
- OKR10 Permit States “Existing operators of on-going construction projects/activities that have active authorizations for coverage under the 2017 CGP coverage upon its expiration must submit an NOI within 90 days of the effective date of this permit. Authorization under the 2017 permit will be administratively extended for a period not to exceed 90 days from the effective date of this permit. The existing SWP₃ must be updated to comply with this permit prior to the NOI submittal”
- Biggest issues with facilities who obtained authorization under the 2017 permit shortly before it expired.

Solution: OKR10 Renewals

- Need to inform all permittees of requirement of renewal of OKR10 Permit



The Times They Are-a-Changin'

- “You don’t need a to weatherman to know which way the wind is blowin’”-
Bob Dylan



© Getty Images/C. Somdevilla

The Dust Bowl

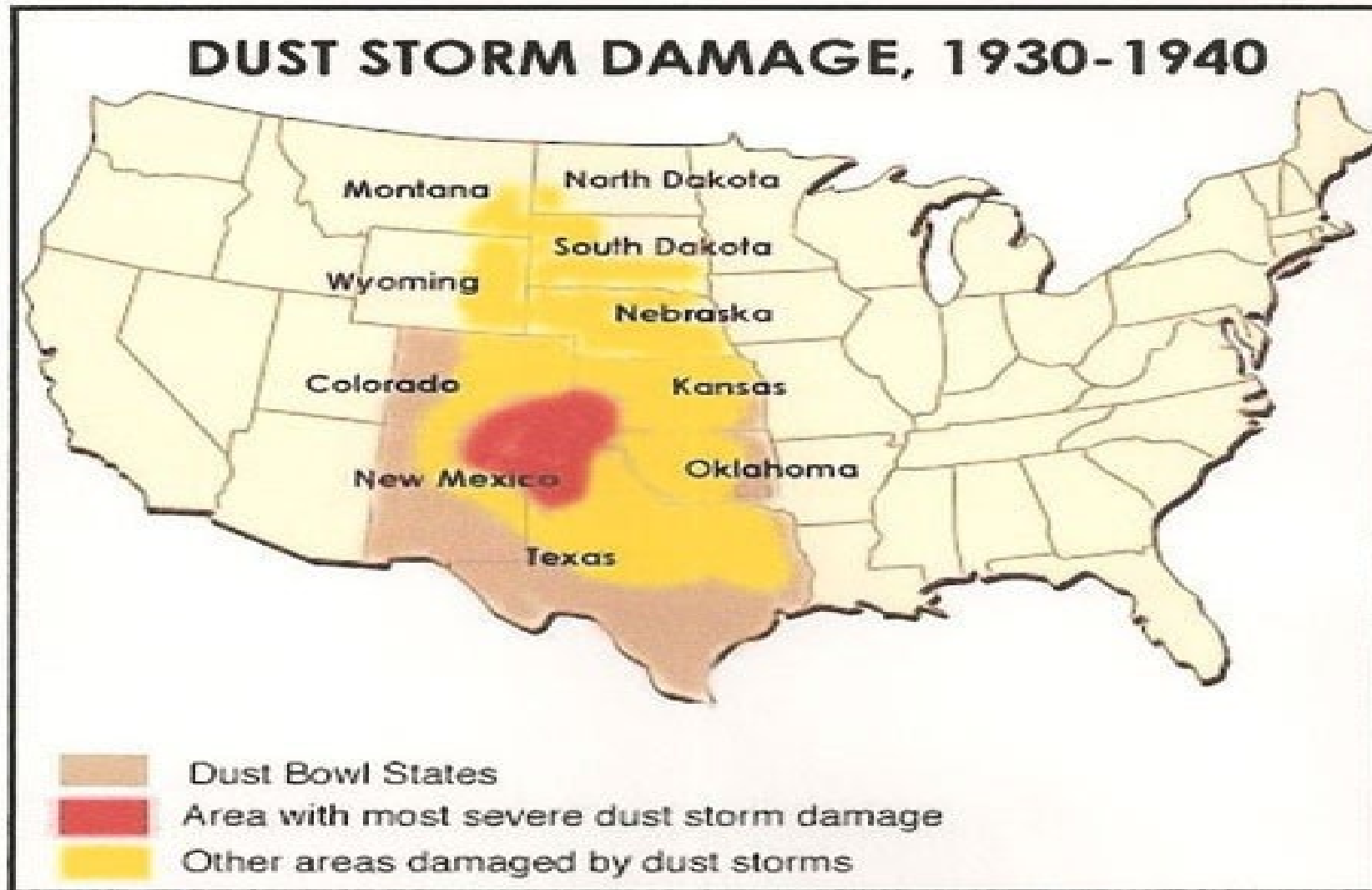


Affected Areas

The Dust Bowl



Affected Areas



Translocation

- 2.5 million people moved out of the plain's states.
 - Largest migration in American History
 - 200,000 moved to California.
 - Memorialized in John Steinbeck's "*Grapes of Wrath*".
 - US Population in 1934 ~ 126 million (approximately 2% of US population relocated)



Causes

- Extreme, extended drought
- Poor farming practices
- The Great Depression



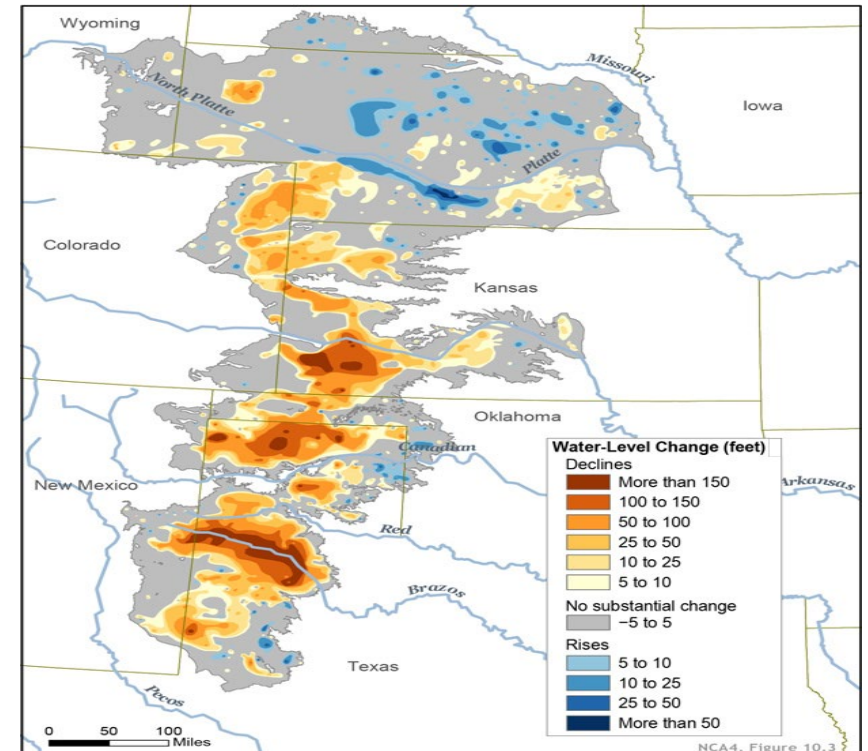
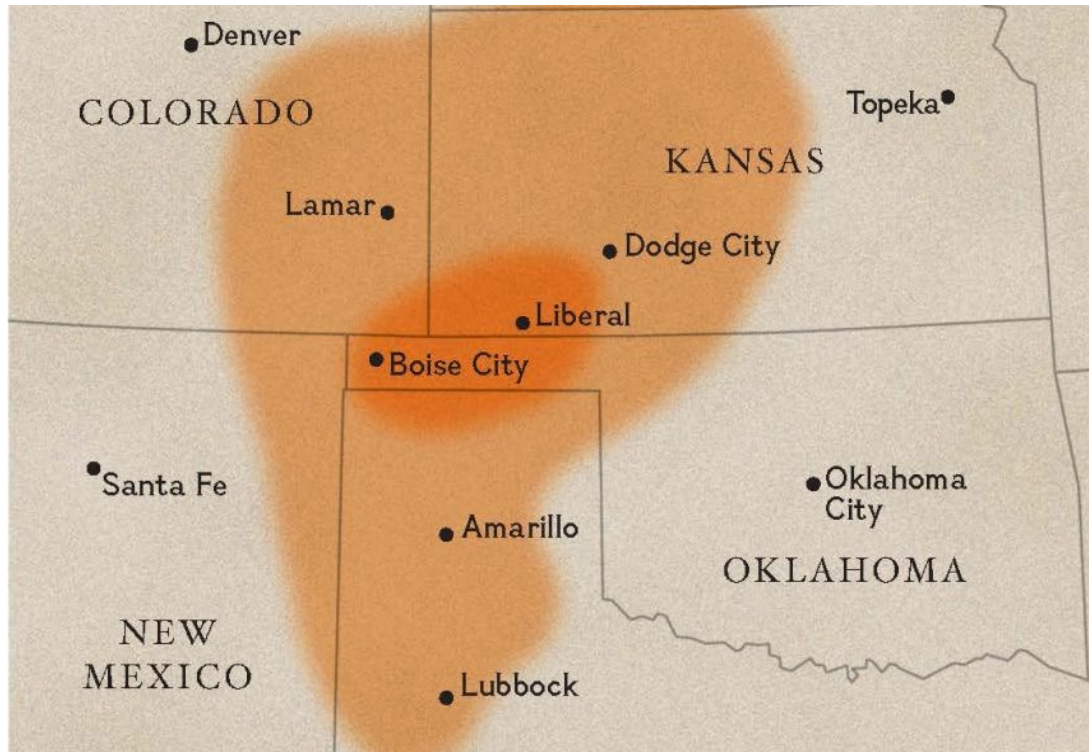
Effects

- Loss of topsoil
- Blowing dust
- “Pockets of Poverty” (i.e. rural ghetto)
- Permanent change of the face America



Texas County, OK Status in 2023 (Ogallala Aquifer)

- Dropping water levels
- Dry-land farming techniques feasibility



A Holistic Approach That Is Sustainable

- Sustainability means the capacity to adapt to changing conditions.
- Oklahoma companies with sustainable business model
 - Braum's Dairy Stores
 - Love's Country Stores
 - The Chickasha Nation
 - Oncue (Closing in on the top 3)



Incorporating Resiliency Aspects Through Technology and Change in Approach

- Low Impact Development (LID) Concepts
- Green Infrastructure (GI) in wider use
- Technology theoretical and applied uses
- Regulators should set the pace along with State Agencies (such as ODOT and OTA) and Municipalities
- Change in attitude is necessary

Things to Consider

- Changing times require changing procedures
- Requirements must be “reasonable”. Can a contractor reasonably be expected to do something?
- What modifications can be made to policy and procedures?
- Are there other ways of doing things ?
- Do Permit requirements fit the times.
 - Caveat; OKR10 expires on October 17, 2027)
- Real Reasons (no rationalizing).



Paradigm Shift

- Reframing a situation
- Move to a different picture frame
- How can that reframing affect outcomes?
- The possibilities are infinite



SUSTAINABILITY AND PARADIGM SHIFTS

- Sustainability
 - the ability to meet the needs of the present generation without compromising the ability of future generation to meet their needs
- Paradigm
 - a model or concept that is accepted by most people in a society
 - it may be a process, idea or set of data

Examples

- Enforcement- Top Down
- Outreach (optional: if you want to)
- Traditional enforcement (legal procedures)
- Collaboration (Amway)
- Outreach (waive one year's fee)
- Inspectors have a ticket book; (modest environmental impact)



The Times They Are-A-Changin'

Come gather 'round people
Wherever you roam
And admit that the waters
Around you have grown
And accept it that soon
You'll be drenched to the bone
If your time to you is worth savin'
And you better start swimmin'
Or you'll sink like a stone
For the times they are a-changin'
Come writers and critics
Who prophesize with your pen
And keep your eyes wide
The chance won't come again
And don't speak too soon
For the wheel's still in spin
And there's no tellin' who
That it's namin'
For the loser now
Will be later to win
For the times they are a-changin'
Come senators, congressmen
Please heed the call
Don't stand in the doorway
Don't block up the hall
For he that gets hurt
Will be he who has stalled
The battle outside ragin'
Will soon shake your windows
And rattle your walls
For the times they are a-changin'
Come mothers and fathers
Throughout the land
And don't criticize
What you can't understand
Your sons and your daughters
Are beyond your command
Your old road is rapidly agin'
Please get out of the new one
If you can't lend your hand
For the times they are a-changin'
The line it is drawn
The curse it is cast
The slow one now
Will later be fast
As the present now
Will later be past
The order is rapidly fadin'
And the first one now
Will later be last
For the times they are a-changin'

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Questions?