



# **Alabama Department Of Environmental Management**

## **ADEM Update to Surface Water Conference**

**October 27, 2016**

**[adem.alabama.gov](http://adem.alabama.gov)**



# Alabama Department Of Environmental Management

## Topics



# Alabama Department Of Environmental Management

## Topics

- EPA / ADEM Relationship



# Alabama Department Of Environmental Management

## Topics

- EPA / ADEM Relationship
- ADEM Funding and Fees



# Alabama Department Of Environmental Management

## Topics

- EPA / ADEM Relationship
- ADEM Funding and Fees
- Current Topics



# Alabama Department Of Environmental Management

## Topics

- EPA / ADEM Relationship
- ADEM Funding and Fees
- Current Topics
  - PFC Health Advisory



# Alabama Department Of Environmental Management

## Topics

- EPA / ADEM Relationship
- ADEM Funding and Fees
- Current Topics
  - PFC Health Advisory
  - Water Policy



# Alabama Department Of Environmental Management

## Topics

- EPA / ADEM Relationship
- ADEM Funding and Fees
- Current Topics
  - PFC Health Advisory
  - Water Policy
  - Water Industry Challenges





# Alabama Department of Environmental Management

## EPA / ADEM Relationship



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## EPA / ADEM Relationship

- EPA Agenda remains the same:



# Alabama Department of Environmental Management

## EPA / ADEM Relationship

- EPA Agenda remains the same:
  - Climate change



# Alabama Department of Environmental Management

## EPA / ADEM Relationship

- EPA Agenda remains the same:
  - Climate change
  - Environmental Justice



# Alabama Department of Environmental Management

## EPA / ADEM Relationship

- EPA Agenda remains the same:
  - Climate change
  - Environmental Justice
  - Greater Federal control



# Alabama Department of Environmental Management

## EPA / ADEM Relationship

- EPA Agenda remains the same:
  - Climate change
  - Environmental Justice
  - Greater Federal control
- ADEM agenda is not EPA agenda



# Alabama Department of Environmental Management

## EPA / ADEM Relationship

- ADEM agenda remains the same:



# Alabama Department of Environmental Management

## EPA / ADEM Relationship

- ADEM agenda remains the same:
  - Permits reflecting legal requirements





# Alabama Department of Environmental Management

## EPA / ADEM Relationship

- ADEM agenda remains the same:
  - Permits reflecting legal requirements
  - Compliance not punishment = business friendly



# Alabama Department of Environmental Management

## EPA / ADEM Relationship

- ADEM agenda remains the same:
  - Permits reflecting legal requirements
  - Compliance not punishment = business friendly
  - Rapid response for State competitive advantage



# Alabama Department of Environmental Management

## EPA / ADEM Relationship

- ADEM agenda remains the same:
  - Permits reflecting legal requirements
  - Compliance not punishment = business friendly
  - Rapid response for State competitive advantage
  - Low cost provider of top quality results



# Alabama Department Of Environmental Management

## ADEM Funding and Fees



# Alabama Department Of Environmental Management

## ADEM Funding and Fees

- Three Funding Sources:



# Alabama Department Of Environmental Management

## ADEM Funding and Fees

- Three Funding Sources:
  - Federal “Grants”



# Alabama Department Of Environmental Management

## ADEM Funding and Fees

- Three Funding Sources:
  - Federal “Grants”
  - State General Fund appropriations



# Alabama Department Of Environmental Management

## ADEM Funding and Fees

- Three Funding Sources:
  - Federal “Grants”
  - State General Fund appropriations
  - State Fee revenue





# Alabama Department of Environmental Management

## ADEM Funding and Fees

- ADEM Gen Fund Budget & Fees:



# Alabama Department of Environmental Management

## ADEM Funding and Fees

- ADEM Gen Fund Budget & Fees:

○ <u>FY 2015</u>	<u>2016</u>	<u>2017</u>
\$1.8 mil	(\$0.9) mil	\$0.4 mil



# Alabama Department of Environmental Management

## ADEM Funding and Fees

- ADEM Gen Fund Budget & Fees:

○ <u>FY 2015</u>	<u>2016</u>	<u>2017</u>
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- No Transfer TO Gen Fund in FY 2017



# Alabama Department of Environmental Management

## ADEM Funding and Fees

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- 2010 – 2016 Permit Fees increased 100+%



# Alabama Department of Environmental Management

## ADEM Funding and Fees

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- 2010 – 2016 Permit Fees increased 100+%

- No Foreseeable Permit Fee Increases



# Alabama Department of Environmental Management

## ADEM Funding and Fees

- ADEM Gen Fund Budget & Fees:

○ <u>FY 2015</u>	<u>2016</u>	<u>2017</u>
\$1.8 mil	(\$.9) mil	\$.4 mil

- No Transfer TO Gen Fund in FY 2017
- 2010 – 2016 Permit Fees increased 100+%
- No Foreseeable Permit Fee Increases
- Remain 49<sup>th</sup> in Funding

**Comparison of State-sourced Funding per Capita**

<u>\$ Gen Fund / Capita</u>	<u>\$ Fees / Capita</u>	<u>\$ Gen fund + Fees / Capita</u>
67.63 Alaska	136.52 West Virginia	140.90 West Virginia
27.18 Wyoming	92.67 Delaware	116.15 Delaware
23.48 Delaware	83.78 New Hampshire	95.65 New Hampshire
18.95 Connecticut	74.48 Missouri	83.51 Alaska
13.33 North Carolina	65.95 Maryland	75.85 Missouri
12.64 New Jersey	59.27 Hawaii	71.40 Maryland
11.87 New Hampshire	50.70 Arizona	61.18 Hawaii
11.02 Vermont	39.72 Maine	51.79 Arizona
10.99 Rhode Island	39.26 Vermont	50.28 Vermont
9.97 Pennsylvania	31.47 Montana	44.81 Maine
9.63 New York	29.49 Mississippi	39.44 Wyoming
9.11 Idaho	28.37 Arkansas	36.99 Montana
8.47 Massachusetts	28.10 California	33.44 Mississippi
6.96 Wisconsin	27.92 Minnesota	30.82 Iowa
6.79 South Dakota	24.27 Michigan	30.19 Pennsylvania
6.65 Iowa	24.18 Iowa	30.13 Arkansas
5.53 Montana	22.26 Wisconsin	29.36 California
5.45 Maryland	21.12 Louisiana	29.24 New York
5.13 North Dakota	20.88 Washington	29.21 Wisconsin
5.10 Maine	20.22 Pennsylvania	28.88 Minnesota
4.74 Kentucky	19.61 New York	27.28 Michigan
4.38 West Virginia	19.58 Nevada	25.74 North Carolina
4.30 Washington	18.72 Virginia	25.69 Connecticut
4.05 Utah	18.69 Oregon	25.18 Washington
3.95 Mississippi	17.95 Nebraska	22.57 Virginia
3.85 Virginia	17.41 Illinois	22.47 Oregon
3.78 Oregon	17.20 Florida	21.17 Louisiana
3.76 Indiana	15.88 Alaska	21.09 Nebraska
3.23 Georgia	15.52 Tennessee	20.21 Kentucky
3.14 Tennessee	15.47 Kentucky	19.58 Nevada
3.14 Nebraska	14.51 Kansas	19.29 Florida
3.06 South Carolina	13.31 Indiana	18.66 Tennessee
3.01 Michigan	12.41 North Carolina	17.99 Rhode Island
2.20 Oklahoma	12.26 Wyoming	17.64 South Dakota
2.09 Florida	11.86 Ohio	17.41 Illinois
1.91 Hawaii	11.14 Texas	17.07 Indiana
1.75 Arkansas	10.91 Oklahoma	16.52 Idaho
1.37 Missouri	10.85 South Dakota	15.78 Kansas
1.27 Kansas	8.46 South Carolina	15.06 New Jersey
1.26 California	<b>8.10 Alabama</b>	13.11 Oklahoma
1.15 Ohio	7.77 Utah	13.01 Ohio
1.10 Arizona	7.42 Idaho	12.50 Massachusetts
0.96 Minnesota	7.15 Colorado	11.82 Utah
<b>0.62 Alabama</b>	7.00 Rhode Island	11.51 South Carolina
0.50 Colorado	6.74 Connecticut	11.38 Texas
0.24 Texas	5.89 Georgia	9.89 North Dakota
0.06 Louisiana	4.76 North Dakota	9.11 Georgia
0.00 Nevada	4.02 Massachusetts	<b>8.72 Alabama</b>
0.00 Illinois	2.41 New Jersey	7.64 Colorado



# Alabama Department Of Environmental Management

## Current Topics





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## Current Topics

- EPA PFC Health Advisory



# Alabama Department Of Environmental Management

## EPA PFC Health Advisory



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## EPA PFC Health Advisory

- Flint MI effect



# Alabama Department Of Environmental Management

## EPA PFC Health Advisory

- Flint MI effect
- 1/8<sup>th</sup> previous level with no new data



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## EPA PFC Health Advisory

- Flint MI effect
- 1/8<sup>th</sup> previous level with no new data
- ATSDR / CDC out of the loop



# Alabama Department Of Environmental Management

## EPA PFC Health Advisory

- Flint MI effect
- 1/8<sup>th</sup> previous level with no new data
- ATSDR / CDC out of the loop
- Process & messaging poorly done



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## EPA PFC Health Advisory

- Forcing states to treat as MCL



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## EPA PFC Health Advisory

- Forcing states to treat as MCL
- Too late to change





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## EPA PFC Health Advisory

- Forcing states to treat as MCL
- Too late to change
- Several control technologies available



# Alabama Department Of Environmental Management

## EPA PFC Health Advisory

- Forcing states to treat as MCL
- Too late to change
- Several control technologies available
- No tests outside Decatur & Gadsden



# Alabama Department Of Environmental Management

## Current Topics

- EPA PFC Health Advisory



# Alabama Department Of Environmental Management

## Current Topics

- EPA PFC Health Advisory
- Statewide Water Policy



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## Statewide Water Policy



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## Statewide Water Policy

- Permanent Joint Legislative Committee for Water Policy and Management



# Alabama Department Of Environmental Management

## Statewide Water Policy

- Permanent Joint Legislative Committee for Water Policy and Management
- AWAAG:



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## Statewide Water Policy

- Permanent Joint Legislative Committee for Water Policy and Management
- AWAAG:
  - Formed 2012





# Alabama Department Of Environmental Management

## Statewide Water Policy

- Permanent Joint Legislative Committee for Water Policy and Management
- AWAAG:
  - Formed 2012
  - Currently engaging Focus Area Panels



# Alabama Department Of Environmental Management

## Statewide Water Policy

- Permanent Joint Legislative Committee for Water Policy and Management
- AWAAG:
  - Formed 2012
  - Currently engaging Focus Area Panels
  - Must answer basic question “Why?”



# Alabama Department Of Environmental Management

## Statewide Water Policy

- Permanent Joint Legislative Committee for Water Policy and Management
- AWAAG:
  - Formed 2012
  - Currently engaging Focus Area Panels
  - Must answer basic question “Why?”
  - Situations requiring water *quantity* control



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## Statewide Water Policy

- Situations requiring water *quantity* control:



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## Statewide Water Policy

- Situations requiring water *quantity* control:
  - Demand exceeds supply



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## Statewide Water Policy

- Situations requiring water *quantity* control:
  - Demand exceeds supply
  - Riparian law uncertainty becomes unacceptable



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## Statewide Water Policy

- Situations requiring water *quantity* control:
  - Demand exceeds supply
  - Riparian law uncertainty becomes unacceptable
  - Existing industry demands



# Alabama Department Of Environmental Management

## Statewide Water Policy

- Situations requiring water *quantity* control:
  - Demand exceeds supply
  - Riparian law uncertainty becomes unacceptable
  - Existing industry demands
  - Economic development demands





# Alabama Department Of Environmental Management

## Statewide Water Policy

- Situations requiring water *quantity* control:
  - Demand exceeds supply
  - Riparian law uncertainty becomes unacceptable
  - Existing industry demands
  - Economic development demands
  - Traction on Federal control of usage



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## Statewide Water Policy

- Agreed data development necessary



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## Statewide Water Policy

- Agreed data development necessary
- Data trending toward very limited quantity shortage except during drought



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## Statewide Water Policy

- Agreed data development necessary
- Data trending toward very limited quantity shortage except during drought
- Inter-basin legislation failed



# Alabama Department Of Environmental Management

## Statewide Water Policy

- Agreed data development necessary
- Data trending toward very limited quantity shortage except during drought
- Inter-basin legislation failed
- Regulation for the sake of regulation?



# Alabama Department Of Environmental Management

## Statewide Water Policy

- Agreed data development necessary
- Data trending toward very limited quantity shortage except during drought
- Inter-basin legislation failed
- Regulation for the sake of regulation?
- Who would regulate?



# Alabama Department Of Environmental Management

## Current Topics

- EPA PFC Health Advisory
- Statewide Water Policy



# Alabama Department Of Environmental Management

## Current Topics

- EPA PFC Health Advisory
- Statewide Water Policy
- Water Industry Challenges





# Alabama Department Of Environmental Management

## Water Industry Challenges



# Alabama Department Of Environmental Management

## Water Industry Challenges

- Funding:



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## Water Industry Challenges

- Funding:
  - Aging Infrastructure > \$290 B over 20 yrs.



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## Water Industry Challenges

- Funding:
  - Aging Infrastructure > \$290 B over 20 yrs.
  - Declining / Increasing Customer base



# Alabama Department Of Environmental Management

## Water Industry Challenges

- Funding:
  - Aging Infrastructure > \$290 B over 20 yrs.
  - Declining / Increasing Customer base
    - Lost revenue / economic development asset



# Alabama Department Of Environmental Management

## Water Industry Challenges

- Funding:
  - Aging Infrastructure > \$290 B over 20 yrs.
  - Declining / Increasing Customer base
    - Lost revenue / economic development asset
    - Investment for expansion



# Alabama Department Of Environmental Management

## Water Industry Challenges

- Funding:
  - Aging Infrastructure > \$290 B over 20 yrs.
  - Declining / Increasing Customer base
    - Lost revenue / economic development asset
    - Investment for expansion
    - Increase efficiency / consolidation



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## Water Industry Challenges

- Funding (continued):
  - Tightening Federal Regulations:





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## Water Industry Challenges

- Funding (continued):
  - Tightening Federal Regulations:
    - Flint MI effect



# Alabama Department Of Environmental Management

## Water Industry Challenges

- Funding (continued):
  - Tightening Federal Regulations:
    - Flint MI effect
    - Lead / Copper



# Alabama Department Of Environmental Management

## Water Industry Challenges

- Funding (continued):
  - Tightening Federal Regulations:
    - Flint MI effect
    - Lead / Copper
    - DBP standards tightening



# Alabama Department Of Environmental Management

## Water Industry Challenges

- Funding (continued):
  - Tightening Federal Regulations:
    - Flint MI effect
    - Lead / Copper
    - DBP standards tightening
    - Health advisories on emerging contaminants



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## *Number of Drinking Water Contaminants Regulated*

	<u>1982</u>	<u>2016</u>
• Organic chemicals		
• Inorganic chemicals		
• Radionuclides		
• Microbes		
Total		



# Alabama Department Of Environmental Management

## *Number of Drinking Water Contaminants Regulated*

	<u>1982</u>	<u>2016</u>
• Organic chemicals	7	
• Inorganic chemicals	10	
• Radionuclides	3	
• Microbes	3	
	<hr/>	
Total	23	



# Alabama Department Of Environmental Management

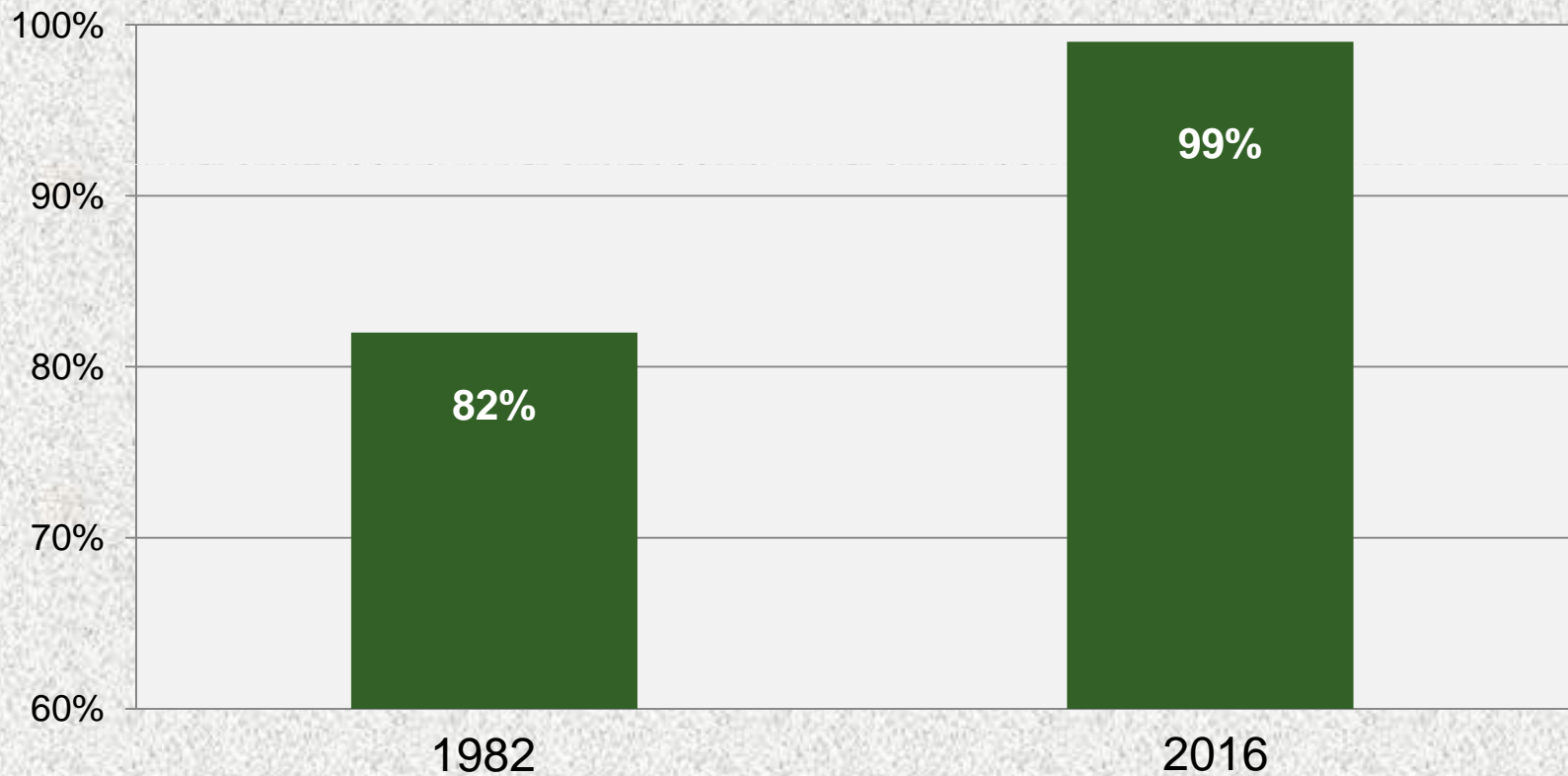
## *Number of Drinking Water Contaminants Regulated*

	<u>1982</u>	<u>2016</u>
• Organic chemicals	7	55
• Inorganic chemicals	10	19
• Radionuclides	3	7
• Microbes	3	8
	<hr/>	<hr/>
Total	23	89



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Percentage of Public Water Systems in Compliance







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## Water Industry Challenges

- Personnel:



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## Water Industry Challenges

- Personnel:
  - Aging workforce



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## Water Industry Challenges

- Personnel:
  - Aging workforce
  - Training workforce



# Alabama Department Of Environmental Management

## Water Industry Challenges

- Personnel:
  - Aging workforce
  - Training workforce
  - Developing proactive strategies:



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## Water Industry Challenges

- Personnel:
  - Aging workforce
  - Training workforce
  - Developing proactive strategies:
    - Interns, co-ops



# Alabama Department Of Environmental Management

## Water Industry Challenges

- Personnel:
  - Aging workforce
  - Training workforce
  - Developing proactive strategies:
    - Interns, co-ops
    - HS student scholarships



# Alabama Department Of Environmental Management

## Water Industry Challenges

- Personnel:
  - Aging workforce
  - Training workforce
  - Developing proactive strategies:
    - Interns, co-ops
    - HS student scholarships
    - Engineering firms



# Alabama Department Of Environmental Management

## Water Industry Challenges

- Litigation:





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## Water Industry Challenges

- Litigation:
  - Emerging contaminants e.g. PFOA / PFOS



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## Water Industry Challenges

- Litigation:
  - Emerging contaminants e.g. PFOA / PFOS
  - 3<sup>rd</sup> party / 60 day notice



# Alabama Department Of Environmental Management

## Water Industry Challenges

- Litigation:
  - Emerging contaminants e.g. PFOA / PFOS
  - 3<sup>rd</sup> party / 60 day notice
  - Small WWTP