

Non-point source transition thought matrix (under development and needing further focus on middle 4 categories)

Status quo	Desired transition	Data needs	Technology Solution Potential	Private Governance Potential	Equity concerns	Law and Policy Innovations	4°C potential disruption
No mandatory federal non-point source laws; CWA has point source focus	To watershed protection	Medium to high (better data linking problems to NP sources could increase pressure for correction)	Medium	Medium to high (pressure from large supply chain managers could help lead to change in practices)	Medium	Revise CWA or regulations to allow for creative non-point source, place-based efforts	High
CWA TMDL program insufficient for diffuse sources						Utilize federal and non-federal land mgt authorities	
Multi-layered government approaches						Utilize federal agricultural law and policy approaches as policy templates	
Point source end of “pipe” measures	Improved quality of land and water focus	Medium	High	Medium	High	More rigorous permitting standards	High
						Develop avenues for trade-offs, trading and cross media solutions	

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Single purpose environmental measures	Multiple benefit recognition and rewards	Medium to high (better data demonstrating problems could create impetus for action)	High	High	High	allow for larger place based jurisdictional efforts – layered government solutions	High
Limited parties at risk/few incentives for broader participation	Bringing in more players for political, financial, and market heft	Medium to high (better data demonstrating problems could create impetus for action)	Low	Medium to high (involvement of large supply chain managers could help shift dynamics)	High	Create incentives in law and regulation either through mandates, or tradeoff incentives	Low
Political boundaries	Need boundaries that reflect true nature of water resources and capture sources and consequences of diffuse pollutants	High	Low	Medium to high (market pressures might accomplish that which has eluded the political process)	Medium	Watershed- or ecosystem based authorities as opt in with better planning (While states could mandate watershed plans, it probably isn't realistic or smart to mandate at federal level); stimulate market pressures to help address issues	Low

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						Define pertinent air shed boundaries for fugitive emissions (but this is very difficult)	
High compliance transaction costs, as well as high grey infrastructure costs	Reduce transaction costs and reduce demand for grey infrastructure through natural function and green infrastructure	High	Low	Medium to high (market pressures could facilitate the needed shift)	Medium	Streamlined permitting; performance tracks; better templates;	Medium
Short-term focus	Long-term focus	Low	Low	High	Medium	Allow for longer time-lines with big enough multi-benefit, multi-jurisdictional effort	Medium

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CWA wetlands permit program allows most fills, modest compensatory mitigation	Broader protection for wetlands	Medium (demonstrated impacts on local hydrology and watershed could help shift perception of need for protection)	Low	Medium	Medium	Set out significant mitigation set asides that protect multiple times the acreage affected if of significant value as a trade-off.	
Current consultation regime	Meaningful local input	Medium	Low	High	High	More inclusive consultation necessary to judge adequacy	Low
Water values and ecosystem services not internalized	Land uses preserve the ecosystem services that the property in question serves	High	Low	Medium to high (market pressures could facilitate the needed shift)	Medium	Redefine burdens that run with real property; add this as a dimension to sustainable agriculture	Medium

NOTES:

1. Work group discussed general principles, rather than specific statutory issues or remedies.
2. Laws and policies considered by working group:
 - a. Federal
 - i. Clean Water Act

- ii. Clean Air Act
 - iii. Food Security Act (Farm Bill, Ag law) regarding incentives for conservation land uses.
- b. State/Regional/Local
 - i. State/local implementation of CWA & state laws
 - ii. Land Use planning at city/county level