



Working Hypotheses

May 6, 2016

Working Hypothesis

A tentative insight into the issue; **a concept that is not yet verified** but that if true would explain or predict certain facts or phenomena.

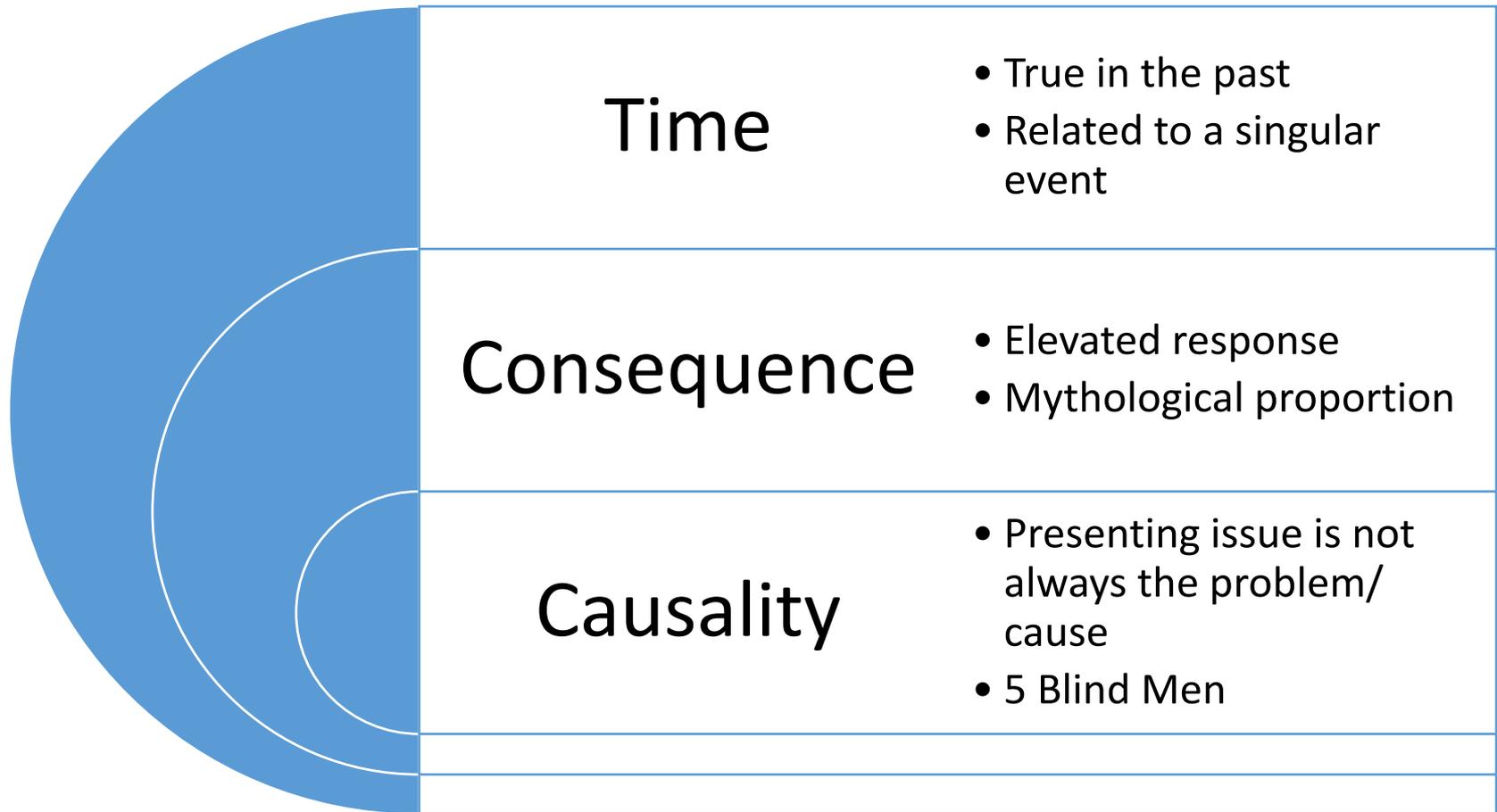
Basis of Hypotheses



A series of issues that may be the cause of NPDES permit backlog have been identified through:

- Multiple studies, reports and audits
- Situation Assessment interview results
- Various solutions and ideas for improvement

Use of the Hypothesis



Use of Findings

Identify Options for Improvements

Evaluate Option pros/cons,
compare to a no action alternative

Ultimately Create Choice Points
for the Implementation Plan

Session Goals

Evaluate each hypothesis and determine to what extent:

1. They are likely to be verifiable
2. Identified issue areas are a significant driver of backlog
 - Short term & Long term
3. Issues are within DEQ control versus outside DEQ control
4. Stakeholders can impact issues outside of DEQ Control

An additional goal is to identify information sources that may assisting in testing the hypotheses and assumptions.

5 Issue Areas, 20 Hypotheses

- Structural
- Capabilities
- Resources
- Cultural
- Legal/Policy



Structural Hypotheses To be Tested

1. Inadequate Data Systems are a barrier to NPDES permit production.
2. NPDES permit writers are doing too many tasks.
3. DEQ Leadership/Management systems are contributing to NPDES permit backlog.
4. Decentralization of NPDES permitting created unintended consequences.

1. Are inadequate Data Systems a barrier to NPDES permit production?

- a. Do permit backlogs compound data problems by requiring additional data collection and synthesis prior to permit preparation?
- b. Is permit preparation is delayed by lack of adequate data?

1. Are inadequate Data Systems a barrier to NPDES permit production?

Investigate:

- Basic data needs for individual permits.
- Requirements for improved electronic database.
- Need for improved access to data by permit writers and stakeholders.

2. Are NPDES permit writers doing too many tasks?

Investigate:

- Need for a workload assessment to determine what tasks done by permit writers could be realigned or as needed re-assigned without a drop in NPDES permit quality or program effectiveness (e.g. enforcement, inspection reports, ...).

2. Are NPDES permit writers doing too many tasks?

Investigate:

- Need to evaluate potential for teaming approaches to augment support for the permit writers and to meet other organizational needs.
- Need to properly prioritize NPDES permit preparation ahead of other tasks.

3. Are DEQ Leadership/ Management systems contributing to NPDES permit backlog?

Investigate:

- Needs for clear process direction including policies, decision trees, process maps and requirements for utilization.
- Needs for established accountability measures based on realistic goals and targets.

3. Are DEQ Leadership/Management systems contributing to NPDES permit backlog?

Investigate:

- Need process to accommodate factors that may interfere with achieving goals.
- Need to realign other priorities that override attainment of permit issuance plans. Need to properly account for impacts associated with addressing other urgent needs.
- Need clear, transparent, decision making processes such as decision trees, RACI Charts,* etc.

* *RACI stands for Responsible, Accountable, Consulted, Informed. RACI charts are often utilized when multiple people are engaged in a process and there is a need to more tightly define the roles and tasks that each are responsible for.*

3. Are DEQ Leadership/Management systems contributing to NPDES permit backlog

Investigate:

- Need to ensure alignment of all change efforts, particularly related to hand-offs and trade-offs.
- Need change management and accountability for execution of high value improvement measures.
- Need improved systems for tracking permit issuance and schedule variance
- Need processes such as dashboards and other tracking mechanisms to create visibility and transparency for progress in achieving desired changes.

4. Is decentralization of NPDES permitting created unintended consequences such as less accountability, more inefficiencies, and inconsistencies within the NPDES functions?

4. Does decentralization create unintended consequences?

Investigate:

- Need for improved communication among headquarters and regional offices focused on improved NPDES results.
- Needed authority for and capability to make decisions in a transparent decision process.
- Need for commitment to use of tools and guidance to prevent unpredictability and lack of consistency. Need a transparent process to make adjustments where required.

5. Are the Standards and TMDL group processes properly integrated with NPDES permit writers' needs and requirements?

Investigate:

- The extent to which Standards and TMDL group process are not well integrated with NPDES permit writers needs and requirements.

5. Are the Standards and TMDL group processes properly integrated with NPDES permit writers' needs and requirements?

Investigate:

- Need to establish the appropriate level of integration and collaboration in policy development.
- Need to determine the role of stakeholders in framing policy and engage as appropriate.

Capability Hypotheses To be Tested

6. Managers are managers, not necessarily NPDES permitting or Clean Water Act experts which creates difficulty with internal oversight.
7. Inadequate tools and/or utilization of tools affects efficiency of NPDES process.
8. Inadequate expertise of NPDES permit writers and/or inadequate training results in NPDES quality and production issues.
9. Lack of a strategic approach to CWA implementation may impede development of NPDES permits.

6. Given managers are managers, and not necessarily NPDES permitting or Clean Water Act experts, are there difficulties with internal oversight?

Investigate:

- Determine and account for in-house CWA and NPDES expertise at management and staff level.

6. Given managers are managers, and not necessarily NPDES permitting or Clean Water Act experts, are there difficulties with internal oversight?

- Investigate:
- Determine if consolidation of available permitting expertise could achieve short term improvements in processes and production.
- Determine if outside NPDES permitting expertise could assist in training and development of management and staff and process development.

7. Do inadequate tools and/or does utilization of tools affect efficiency of the NPDES process?

Investigate:

- Need for an easy to use, updated Permit Writers Guide.
- Need for updated and improved NPDES Permit and Fact Sheet templates.

7. Do inadequate tools and/or does utilization of tools affect efficiency of the NPDES process?

Investigate:

- Need for improved data access and data tools.
- Need for additional collaboration with NPDES permit applicants to ensure adequate information for permit preparation.

8. Does inadequate expertise of NPDES permit writers and/or inadequate training result in NPDES quality and production issues?

Investigate:

- Need for upgraded/improved NPDES permit writer training program.

8. Does inadequate expertise of NPDES permit writers and/or inadequate training result in NPDES quality and production issues?

Investigate:

- To what extent hiring practices contribute to availability of expertise.
- Need for consistently implemented and maintained NPDES training program to address continuing changes in requirements.

9. Does a lack of a strategic approach to CWA implementation impede development of NPDES permits?

Investigate:

- To what extent there is a need for forward thinking, active assessment and understanding of the implications of future WQ standards or TMDL waste load allocations (WLAs) on NPDES permit requirements and/or treatment improvements.

9. Does a lack of a strategic approach to CWA implementation impede development of NPDES permits?

Investigate:

- Requirements for planning related to increased NPDES permit requirements in the near future that will be created by new WQ standards.
- Needed strategies to address permit appeals and EPA disapprovals.
- Ways to address permit development in the context of litigation given conflicts and new interpretations of CWA requirements.

Resources Hypotheses To be Tested

10. Available resources cannot resolve backlog - Inadequate resources are devoted to NPDES permit issuance.
11. Available resources not fully utilized.
12. Uncertainties in DEQ funding streams and funding structure limit resources, and therefore restrict NPDES permit writing capacity.
13. The Blue Ribbon Committee can assist in advancing its original purpose of resolving NPDES permit backlog.
14. Succession planning will be essential to future NPDES permitting success.

10. Can available resources resolve backlog? Are inadequate resources devoted to NPDES permit issuance?

Investigate:

- Need for an adequate assessment of resource needs, including workload evaluation.
- What external resources would be needed to address short term backlog needs.

11. Are available resources fully utilized?

Investigate:

- What existing staff resources in DEQ can be utilized to support NPDES permitting goals.
- Need to identify the best staff resources available to the process.
- Need for better utilization of the most skilled staff in process development and training.

12. Do uncertainties in DEQ funding streams and funding structure limit resources, and therefore restrict NPDES permit writing capacity?

- Need to determine to what extent annual changes in overall funding impact NPDES permit writing.

12. Do uncertainties in DEQ funding streams and funding structure limit resources, and therefore restrict NPDES permit writing capacity?

Investigate:

- Need for allocation of available funding adequately aligned with NPDES permit priorities.
- Need to examine the benefits of different funding approaches and elevate for decision maker consideration. May include a discussion of items such as dedicated fees for permit writing.

13. Can the Blue Ribbon Committee assist in advancing its original purpose of resolving NPDES permit backlog?

Investigate:

- Need to reestablish the Mission, goals and objectives of BRC

13. Can the Blue Ribbon Committee assist in advancing its original purpose of resolving NPDES permit backlog?

Investigate:

- Need to evaluate BRC membership in consideration of future CWA requirements.
- Need to explore the role the BRC may serve in resolution of short and long-term NPDES backlog.

14. Will succession planning be essential to future NPDES permitting success?

- a. Do identified needs for expertise coupled with a pending loss of the most senior personnel predict future deficiencies?

Investigate:

- Need to plan for this eventuality. Determine if job shadowing, knowledge transfer and other transition tools should be utilized.

Cultural Hypotheses To be Tested

15. A focus on customer service v regulatory roles may confuse NPDES permit writing priorities.
16. The polarity between a desire and need for staff autonomy and the opposite need for managerial controls.
17. Customization versus Standardization of NPDES process creates loses in efficiency.

15. Does a focus on customer service confuse NPDES permit writing priorities?

Investigate:

- Need to consider and budget for time spent on technical assistance rather than NPDES permit writing.

15. Does a focus on customer service confuse NPDES permit writing priorities?

Investigate:

- Concerns regarding “difficult” NPDES permits precluding successful implementation by smaller permittees.
- Need for strategies to support compliance attainability and address the ultimate cost of NPDES requirements.
- The degree to which small community permits consume proportionally more resources.

16. What are the polarities between a desire and need for staff autonomy and the opposite need for managerial controls?

- a. Do differences in expertise and skills between NPDES permit writers and management create barriers to implementing some managerial controls?
- b. NPDES permit writers have observed multiple false starts in attempting to resolve backlog. Have some personnel have defaulted to “waiting it out” until the next change comes along?

16. What are the polarities between a desire and need for staff autonomy and the opposite need for managerial controls?

Investigate:

- Need for headquarters/management to address a lack of adherence to procedures when it leads to lack of standardization and a breakdown of processes.
- Need for significant change management to address understandable resistance.

17. Does customization versus Standardization of NPDES processes create loses in efficiency?

Investigate:

- What activities and sub activities that involve repetitive processes can to be considered candidates for standardization.

Legal/ Policy Hypotheses To be Tested

18. Litigation outcomes hinder/delay NPDES permit issuance.
19. Disapprovals of standards and permits by EPA disrupts NPDES process.
20. Inability to attain of WQS, TMDLs on NPDES permits which results in delays in issuance.

18. Do pending litigation and anticipated litigation outcomes hinder/delay NPDES permit issuance?

- Need to document evidence /linkage between litigation outcomes and permit delays.

18. Do pending litigation and anticipate litigation outcomes hinder/delay NPDES permit issuance?

Investigate:

- Need for solutions to address impact of litigation on NPDES permit issuance.
- Need to provide NPDES permit writers alternatives when litigation outcomes create untenable situations for permit issuance.

19. Does disapproval of standards and permits by EPA disrupt the NPDES permit process?

- a. Have specific EPA determinations (for example, issues related to water quality trading) eliminated the flexibility that previously allowed NPDES permits to be written?

19. Does disapproval of standards and permits by EPA disrupt the NPDES permit process?

Investigate:

- Need to document evidence/linkage between EPA actions and NPDES permit delays.
- Needed solutions/strategies to deal with likelihood of increasing EPA actions due to increased oversight and changes to the CWA.

20. Does the anticipated inability to attain WQS, TMDLs on NPDES permits result in delays in permit issuance?

Investigate:

- The need for a transparent nexus between WQ standards/TMDLs and achievement of TMDL requirements.

20. Does the inability to attain of WQS, TMDLs on NPDES permits result in delays in permit issuance?

Investigate:

- Need to create stronger linkages among staff developing in all parts of the NPDES system (standards, TMDL, permit staff and management) to express the impact of their work on NPDES permit outcomes.
- Need to fully document examples where WQ standards or TMDL issues have been directly linked to delays in NPDES permits