Revised Agenda

New Jersey Drinking Water Quality Institute (DWQI)

Thursday June 30, 2016, 1 pm

USGS NJ Water Science Center

3450 Princeton Pike, Suite 110

Lawrenceville, NJ 08648

Phone: 609-771-3900

The meeting is open to the public. All attendees will be asked to sign in and provide contact information.

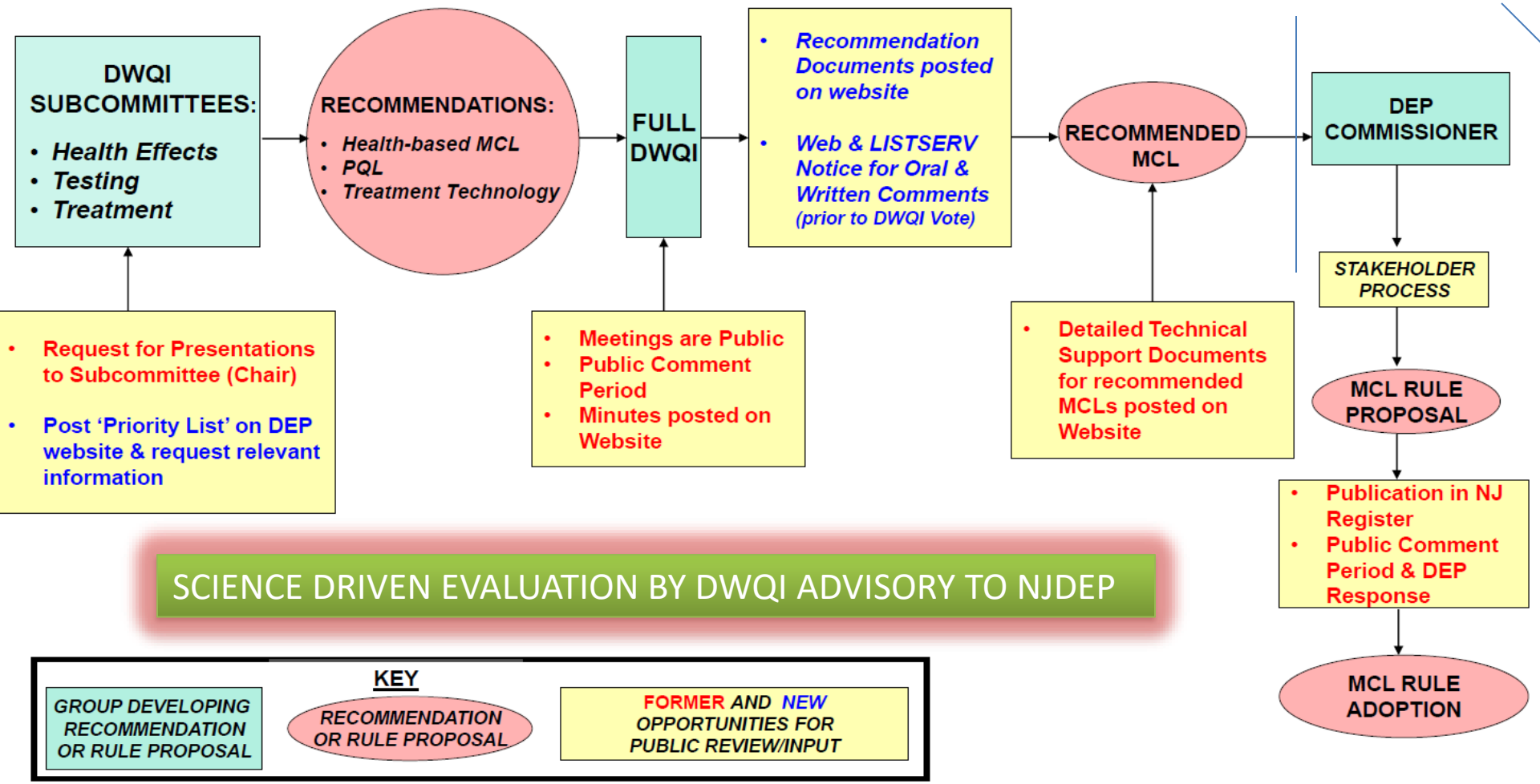
		Time
1.	**DWQI Chair:** Welcoming remarks and introduction of the DWQI members present, new member [***Dr. Daniel Salvito***] and member stepping down off [***Laura Cummings, PE***] the DWQI (Keith Cooper)	10 minutes
2.	**Review of October 28, 2015 Minutes**	5 Minutes
3.	**1,2,3-Trichloropropane:** • Overview of Next Steps (Keith Cooper) • Report from Treatment Subcommittee on review of 2009 DWQI MCL recommendation (Laura Cummings)	20 minutes
4.	**DWQI Questions**	10 minutes
5.	**Public Comments**	5 minutes/comment
6.	**Polyfluorinated alkyl substances (PFASs) :**	20 minutes
7.	**Public Comments**	**15 Minutes**
8.	**Adjourn Public Meeting**	
9.	**Full DWQI non-public meeting**	

A Short Update on Perfluorinated Alkyl Substances (PFAS)

Keith R. Cooper

New Jersey Drinking Water Quality Institute
June 30, 2016

PUBLIC PARTICIPATION IN MCL DEVELOPMENT PROCESS



SCIENCE DRIVEN EVALUATION BY DWQI ADVISORY TO NJDEP

Overview of DWQI PFOA Health Effects Approach

- Health-based goals from 1983 A-280 Amendments to NJ Safe Drinking Water Act
  - Non-cancer: No adverse physiological effects from ingestion
  - Cancer: One in one million risk from lifetime exposure
- Risk assessment approach – based on USEPA guidance
- Extensive literature search – more than 2,000 publications
- Focused on key human and animal effects
- Epidemiological data
  - Limitations preclude use as primary basis for Health-based MCL
  - Justify concern about substantial ↑ in blood levels from drinking water
  - Support public health protective approach based on animal data
- Toxicological data - evaluated non-cancer and cancer effects
- Mode of action and human relevance – thorough evaluation
- Dose-response modeling
  - Benchmark dose modeling of non-cancer and cancer effects
  - Considers greater persistence in humans than animals

Overview of Process and Current Status

2007: NJDEP **chronic** PFOA drinking water guidance of 40 ng/L. Basis was published (Post et al., 2009).

2009: USEPA **short term** Provisional Health Advisories for PFOA (400 ng/L) and PFOA (200 ng/L).

2009-10: DWQI voted to develop MCL for PFOA. Detailed evaluation subsequently performed by Health Effects (HE) Subcommittee.

2012: Review of PFOA as an emerging drinking water contaminant by current and former HE Subcommittee members (Post et al., 2012).

***2014*:** NJDEP Commissioner Martin asked DWQI to recommend MCLs for PFNA, PFOA, and PFOS.

***2015*:** DWQI recommended PFNA MCL of 13 ng/L.

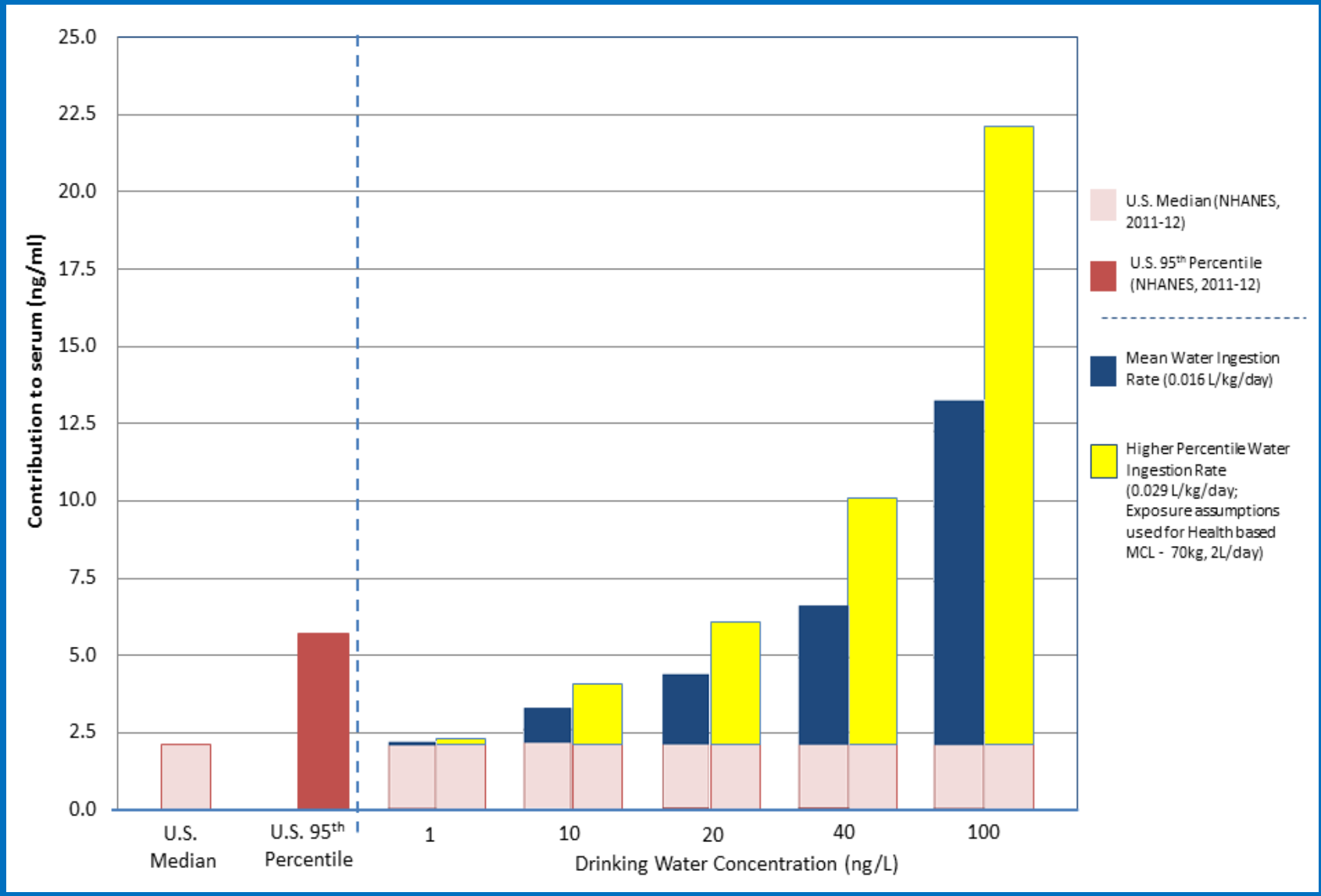
***May/2016*:** USEPA finalized Lifetime Health Advisories for PFOA, PFOS, and total of PFOA + PFOS of 70 ng/L.

***June-July/2016*:** HE Subcommittee finalizes Public Review Draft of Health-based MCL Support Document for PFOA and the Treatment and Analytical .

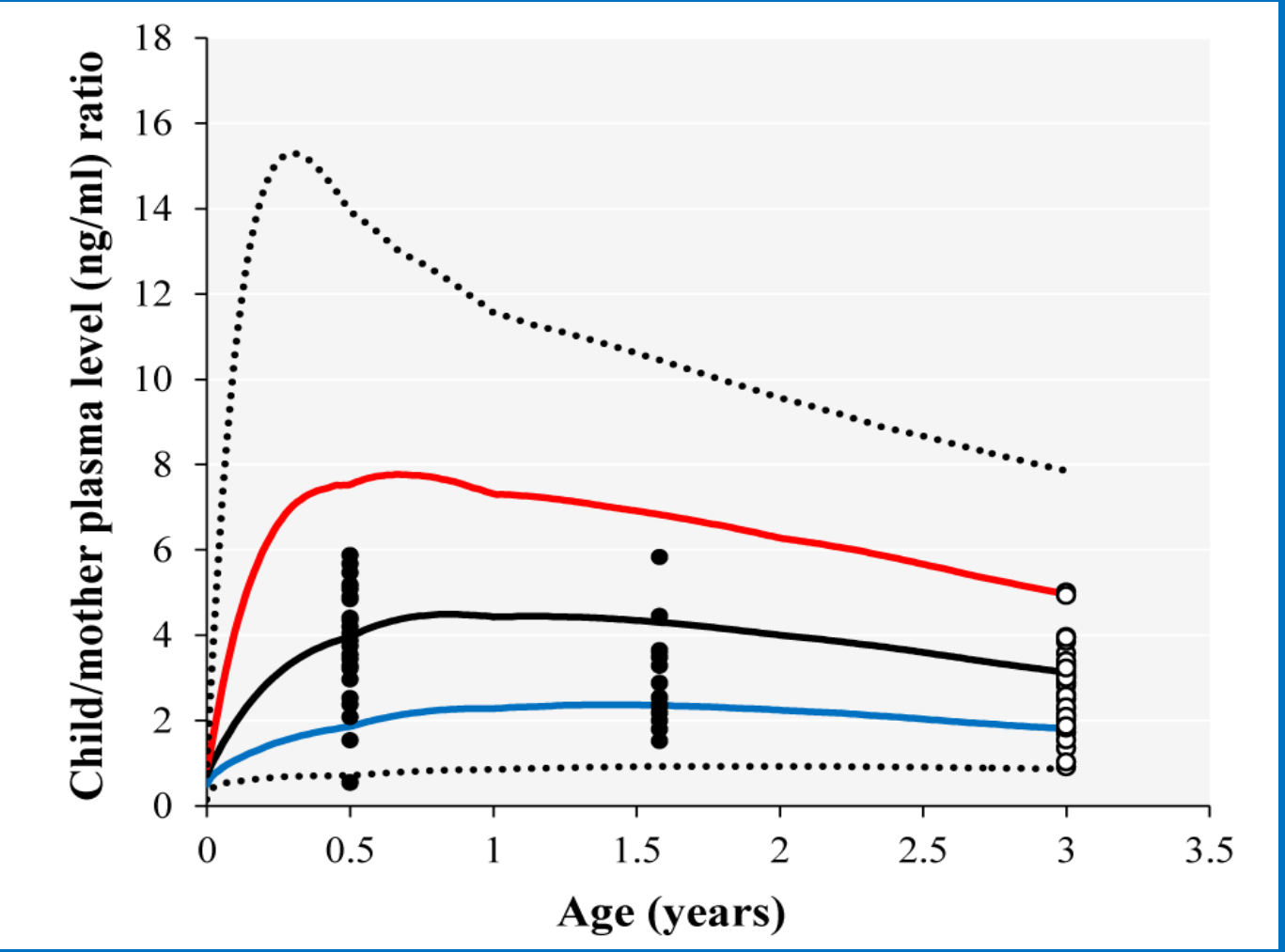
PFOA is a Persistent Bioaccumulative and Toxic (PBT) Drinking Water Contaminant

- Different from most other PBT compounds
  - Water soluble - important as drinking water contaminant
- Persists in environment and human body
  - Remains in the body for many years after exposure ends
- Bioaccumulates from drinking water to humans
  - Ratio greater than 100:1
  - Low concentrations → several-fold ↑ in blood levels (Central Compartment actual internal dose)
- Infants' blood levels much higher from same exposures
  - Transferred to breast milk in mother
  - In formula prepared with contaminated water
  - Fluid consumption much higher on body weight basis
  - Sensitive subpopulation for developmental effects

Relatively Low Concentrations of PFOA in Drinking Water Substantially Increase PFOA in Blood Serum



Increases in Blood Serum PFOA are Greater in Infants Considered as a Sensitive Stage of Human Development



Verner et al., 2016

Next Steps for the DWQI for 1,2,3-Trichloropropane & PFASs

- The 1,2,3-Trichloropropane Public Review Draft will be posted for comment in the next few weeks based on the reports from each of the committees and public comment along with any presentations.

- At the next meeting the DWQI will discuss all of the comments and submit a revised document based on consideration of the submitted comments to Commissioner Martin for further policy and cost review for promulgating an MCL.

Next Steps for the DWQI for 1,2,3-Trichloropropane & PFASs

- PFOS is likely to be the next compound to be evaluated based on Commissioner Martin's March 2014 letter request.

- The DWQI will convene into a closed session where each of the Chairs of the committees will present their individual committee conclusions concerning PFOA to the full DWQI members and a discussion on the committee findings as they relate to the final recommendations and posting of the Public Review Draft.

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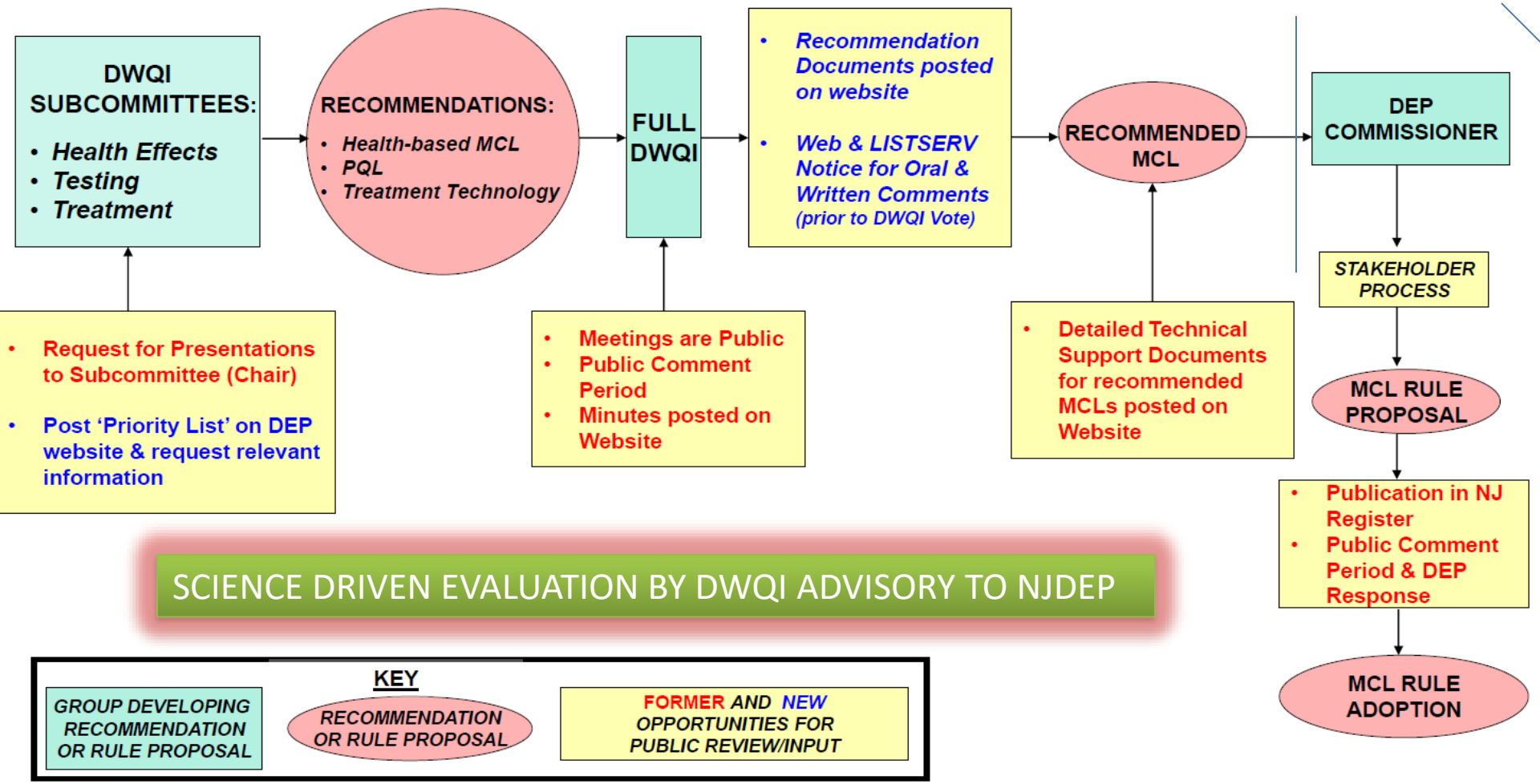

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