



**N.J.A.C. 7:50–6.86
DRAFT RULE AMENDMENTS**

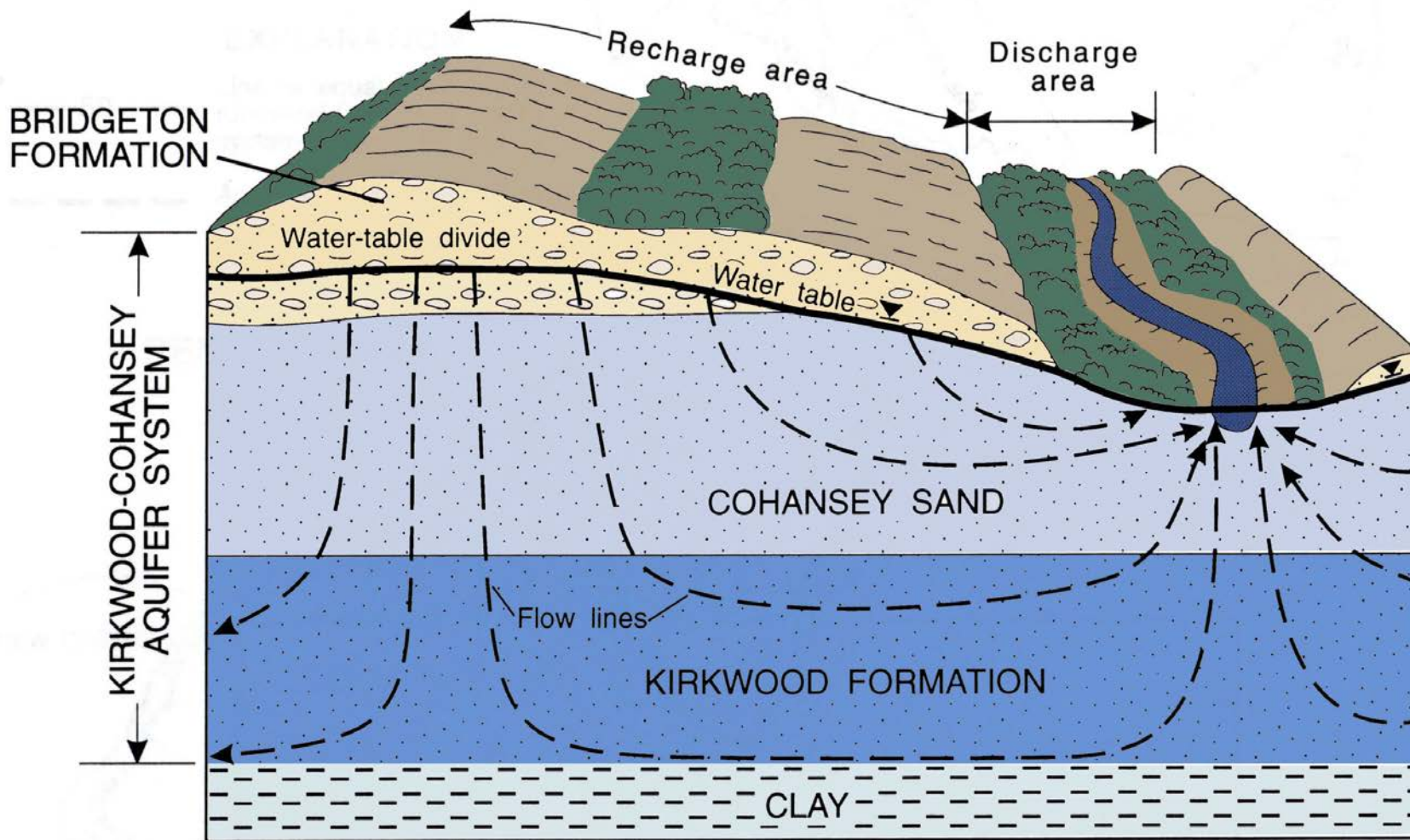
KIRKWOOD – COHANSEY AQUIFER

P&I COMMITTEE

MARCH 25, 2022

THE KIRKWOOD COHANSEY AQUIFER

- 17-TRILLION GALLON FRESH-WATER RESERVOIR UNDERLYING THE PINELANDS
- SUPPORTS UNIQUE PINELANDS VEGETATION AND ANIMAL COMMUNITIES
- PRODUCTIVE WATER SUPPLY SOURCE FOR HUMAN USES
- CHARACTERIZED BY LOW ACIDITY, LOW SUSPENDED SOLIDS, LOW SPECIFIC CONDUCTANCE (CLEAN)
- SHALLOW, EXTENSIVE CONE OF DEPRESSION FROM WELLS



BACKGROUND

K-C Project

- Gibson Bill
- Hydrologic studies
- Habitat & Species impact studies

Need for Improvements to CMP

- Clearer requirements
- Objective metrics
- Incorporate K-C Project studies

Progressive Protections

- Greater protections in Preservation Area District, Special Agricultural Production Area & Forest Area
- Allow withdrawals in less restrictive Management Areas

POLICY GOALS

Clearer terms and standards

Quantitative rather than qualitative standards

Ensuring water supply for development

OVERVIEW OF PROPOSED RULE

- INTERBASIN TRANSFERS PROHIBITED
- INTRABASIN TRANSFERS PERMITTED (SUBJECT TO STANDARDS)
- KIRKWOOD-COHANSEY AQUIFER DIVERSION STANDARDS
 - MANAGEMENT AREAS WHERE DIVERSIONS ARE PERMISSIBLE
 - VIABLE ALTERNATIVE SOURCES
 - NO ADVERSE ECOLOGICAL IMPACT
 - NO ADVERSE REGIONAL IMPACT
 - NO ADVERSE LOCAL IMPACT
- WATER CONSERVATION REQUIREMENTS
- NOTICE REQUIREMENTS

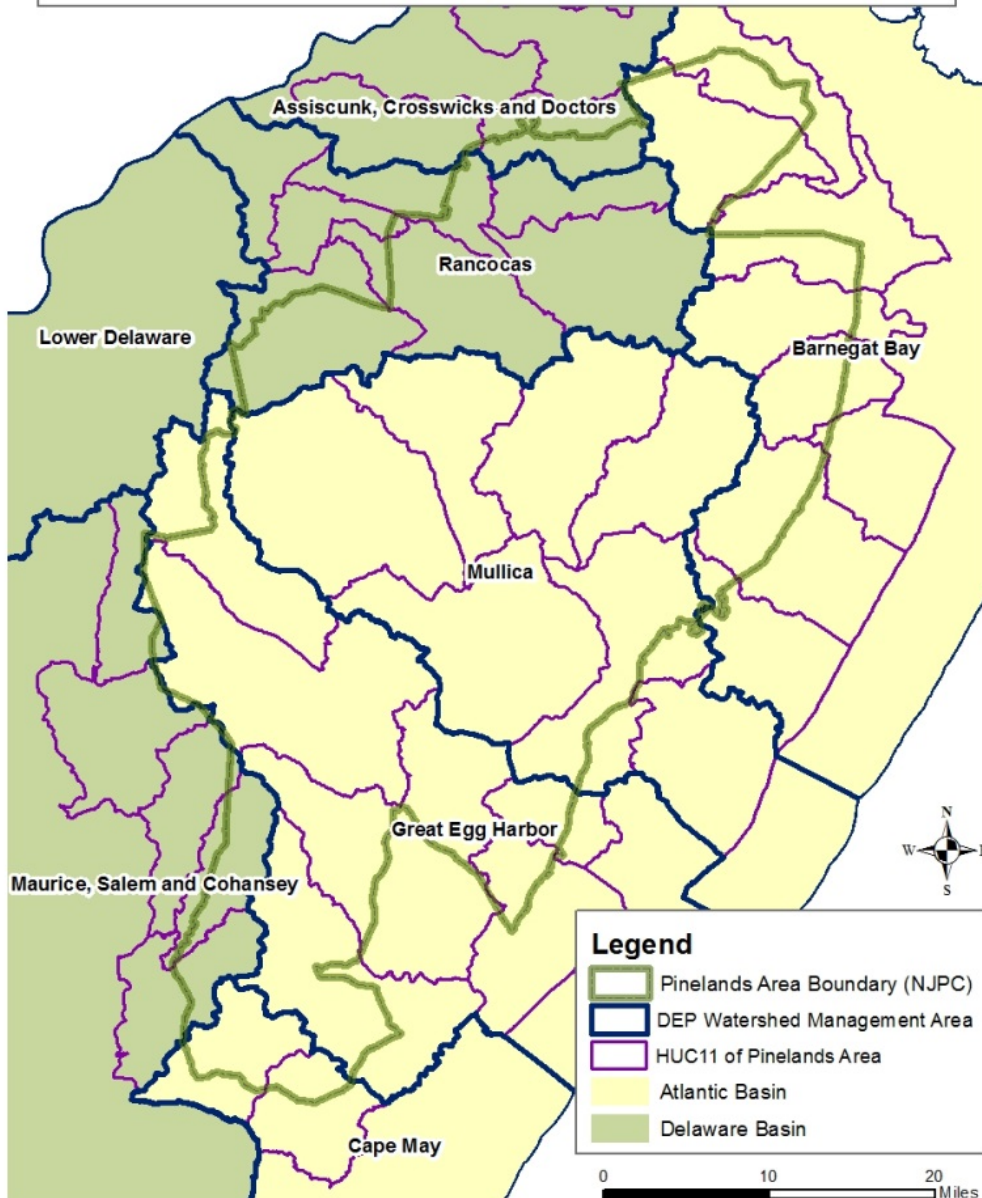
INTERBASIN TRANSFERS



50,000+
gpd
from K-C
wells

- CURRENT RULE: INTERBASIN TRANSFER OF WATER TO BE AVOIDED TO MAXIMUM EXTENT PRACTICAL
- PROPOSED RULE AMENDMENT:
 - SPECIFICALLY PROHIBIT INTERBASIN TRANSFER
 - DEFINE “BASIN”
 - ATLANTIC
 - DELAWARE

Hydrologic Unit Code -11 Watersheds



TERMS: HUC – 11 & BASIN

HUC-11 WATERSHEDS ARE DELINEATED BY
USGS

COMBINED THEY MAKE UP WATERSHED
MANAGEMENT AREAS DELINEATED BY
NJDEP

WATERSHED MANAGEMENT AREAS
COMBINED MAKE UP BASINS TO BE USED
FOR RULE

INTRABASIN TRANSFERS




50,000+
gpd
from K-C
wells

- CURRENT RULE: DOES NOT ADDRESS TRANSFER OF WATER WITHIN THE SAME BASIN
- PROPOSED RULE AMENDMENT:
 - ALLOWS TRANSFER OF WATER BETWEEN HUC-11 WATERSHEDS IN THE SAME BASIN.
 - IF TRANSFER INVOLVES WATER SOURCED FROM KIRKWOOD-COHANSEY AQUIFER, DIVERSION MUST MEET STANDARDS AND CRITERIA IN THE RULE

WELLS SUBJECT TO NEW STANDARDS

- DIVERSIONS FROM KIRKWOOD-COHANSEY AQUIFER GREATER THAN 50,000 GALLONS OF WATER A DAY
 - CURRENT RULE APPLIES ONLY TO 100,000 GALLONS OF WATER OR MORE A DAY
- NEW STANDARDS WILL NOT APPLY TO:
 - REPLACEMENT OF EXISTING WELLS IF NO INCREASE IN ALLOCATION
 - EXCLUSIVE AGRICULTURAL OR HORTICULTURAL USE



50,000+
gpd
from K-C
wells



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wells

PINELANDS MANAGEMENT AREAS

- CURRENT RULE DOES NOT RESTRICT NEW DIVERSION TO SPECIFIC MANAGEMENT AREAS
- PROPOSED RULE AMENDMENT:
 - NEW OR INCREASED DIVERSION NOT ALLOWED IN:
 - PRESERVATION AREA DISTRICT, FOREST AREA, OR SPECIAL AGRICULTURAL PRODUCTION AREA
 - VILLAGES DERIVED FROM PRESERVATION AREA
 - NEW OR INCREASED DIVERSION ALLOWED IN:
 - REGIONAL GROWTH AREA, TOWNS, RURAL DEVELOPMENT AREA, AGRICULTURAL PRODUCTION AREA, MILITARY-FEDERAL INSTALLATION AREA & CERTAIN VILLAGES

NO ALTERNATIVE WATER SOURCES

- CURRENT RULE: DIVERSION PERMITTED ONLY IF NO VIABLE ALTERNATIVE WATER SUPPLY SOURCES
- PROPOSED RULE AMENDMENT:
 - RETAINS THIS RESTRICTION
 - CLARIFIES WHAT IS MEANT BY “ALTERNATIVE WATER SUPPLY SOURCES”



NO ADVERSE ECOLOGICAL IMPACTS

- EXISTING RULE: SIMPLY STATES THAT THE DIVERSION CANNOT RESULT IN ANY ADVERSE ECOLOGICAL IMPACT ON THE PINELANDS AREA
- PROPOSED RULE AMENDMENT:
 - INCLUDES SPECIFIC, OBJECTIVE STANDARDS TO MEASURE ADVERSE ECOLOGICAL IMPACT
 - BREAKS DOWN ADVERSE ECOLOGICAL IMPACT INTO:
 - ADVERSE REGIONAL IMPACT
 - ADVERSE LOCAL IMPACT



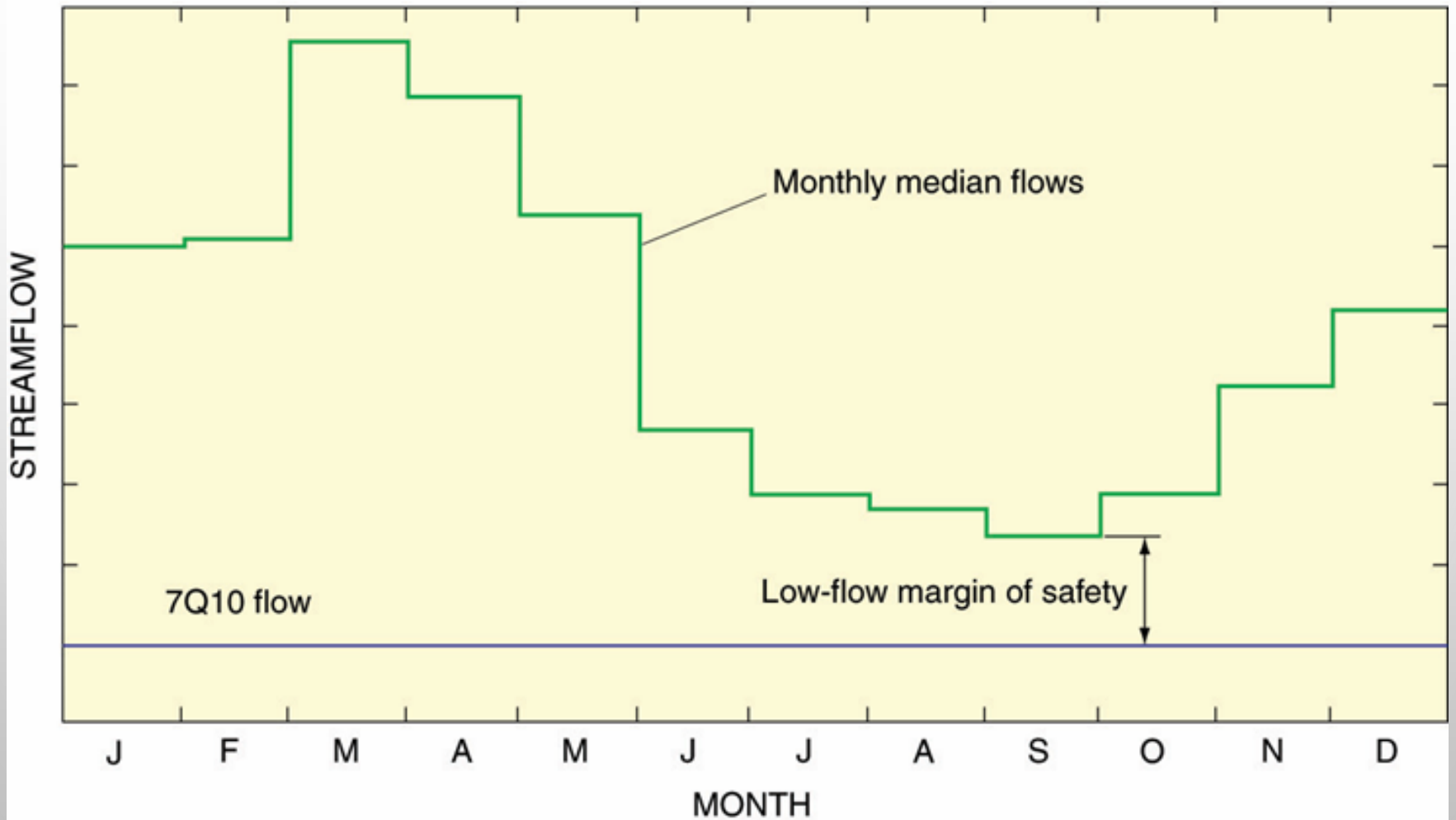


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NO ADVERSE REGIONAL IMPACT

- CURRENT RULE: DOES NOT REQUIRE AN ASSESSMENT OF THE IMPACT OF A DIVERSION ON THE REMAINING WATER CAPACITY IN THE WATERSHED
- PROPOSED RULE AMENDMENT: REQUIRES CALCULATION OF HOW MUCH WATER IS AVAILABLE FROM A WATERSHED AND ALLOWS DIVERSION ONLY IF WATERSHED HAS SUFFICIENT CAPACITY AS MEASURED BY THE STREAM LOW FLOW MARGIN
 - RELIES ON STATEWIDE WATER SUPPLY PLAN FOR LFM
 - IF EXISTING USE OF WATER IN A WATERSHED IS ALREADY MORE THAN 20% OF THE LFM, THEN NO ADDITIONAL WITHDRAWAL ALLOWED UNLESS USE IS OFFSET (*SEE NEXT SLIDE*)
 - IF PROPOSED DIVERSION WILL RESULT IN MORE THAN 20% OF LFM BEING USED, THEN PROPOSED USE MUST BE OFFSET
 - NO OFFSETS REQUIRED IF STREAM WILL NOT REACH 20% OF LFM

LOW-FLOW MARGIN OF SAFETY



OFFSETS

- APPLICANT REQUIRED TO PERMANENTLY OFFSET DIVERSION ON GALLON-FOR-GALLON BASIS IF:
 - STREAM LOW FLOW MARGIN IS LESS THAN 20% WITH OR WITHOUT NEW DIVERSION
- EXAMPLES OF OFFSETS INCLUDED IN RULE





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NO ADVERSE LOCAL IMPACT

- CURRENT RULE: REQUIRES ONLY THAT DIVERSION MINIMIZE IMPACTS ON WETLANDS AND SURFACE WATERS
- PROPOSED RULE:
 - MEASURABLE, NUMERICAL STANDARDS TO ENSURE MINIMAL IMPACTS ON WETLANDS AND SURFACE WATERS
 - CLEAR PROCESS OF DEMONSTRATING NO LOCAL IMPACT
 - FOUR STEP PROCESS:
 - THIEM
 - HYDROGEOLOGIC TEST DESIGN
 - HYDROGEOLOGIC (PUMP) TEST
 - MODFLOW MODEL
 - ANALYSES, TESTS, MODELS TO BE EVALUATED FOR VALIDITY BY USGS

stages of pond-breeding frogs. Although different measures were used for the short-term and long-term simulations, the results of all simulations indicated that impacts would generally begin to occur at water-depth reductions of 10 to 15 cm. For all simulations, successively greater reductions would have caused increasing impacts that varied by species and pond, with the 50-cm reductions shortening pond hydroperiods enough to practically eliminate the possibility of larval development and metamorphosis for all three species.



WATER CONSERVATION

- CURRENT RULE: REQUIRES ALL WATER SUPPLY WELLS AND DISTRIBUTION SYSTEM APPLICATIONS TO “ADDRESS” WATER CONSERVATION
- PROPOSED RULE AMENDMENT:
 - REQUIRES SPECIFIC, MEASURABLE WATER CONSERVATION MEASURES TO BE IN EFFECT, OR PLANNED FOR IMPLEMENTATION, TO REDUCE WATER DEMAND AND REDUCE LOSSES IN WATER DISTRIBUTION

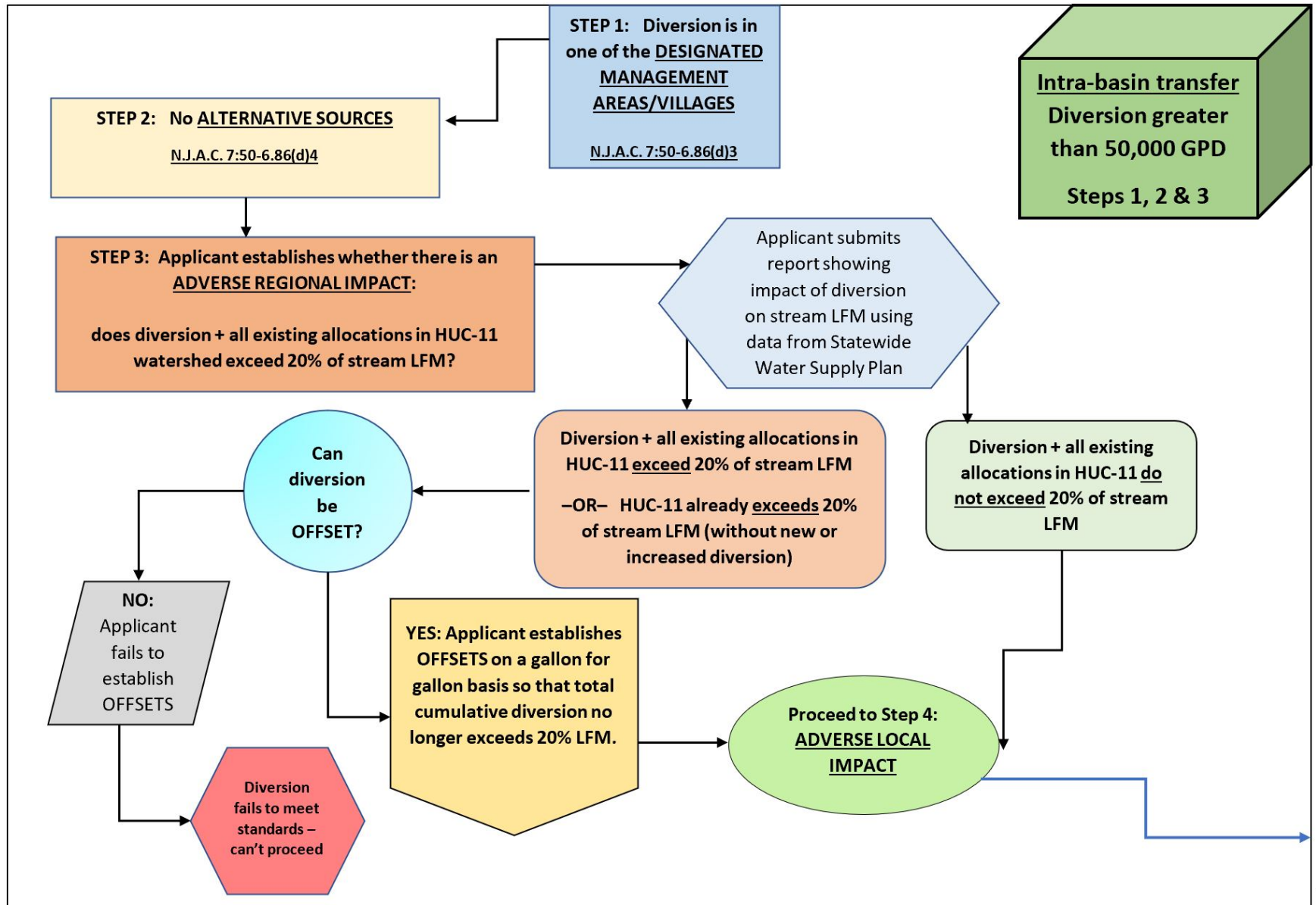
NOTICE



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- CURRENT RULE: DOES NOT REQUIRE NOTICE OF PROPOSED NEW DIVERSION TO AFFECTED MUNICIPALITIES
- PROPOSED RULE AMENDMENT: REQUIRES NOTICE TO MUNICIPALITIES
 - WHEN 2 OR MORE MUNICIPALITIES SHARE ANY PORTION OF AN AFFECTED HUC-11 WATERSHED, APPLICANTS TO PROVIDE NOTICE TO MUNICIPALITY IN WHICH DIVERSION WILL BE LOCATED, AS WELL AS ANY OTHER MUNICIPALITY IN THE AFFECTED HUC-11 WATERSHED

(STEPS 1-3)



(STEP 4)

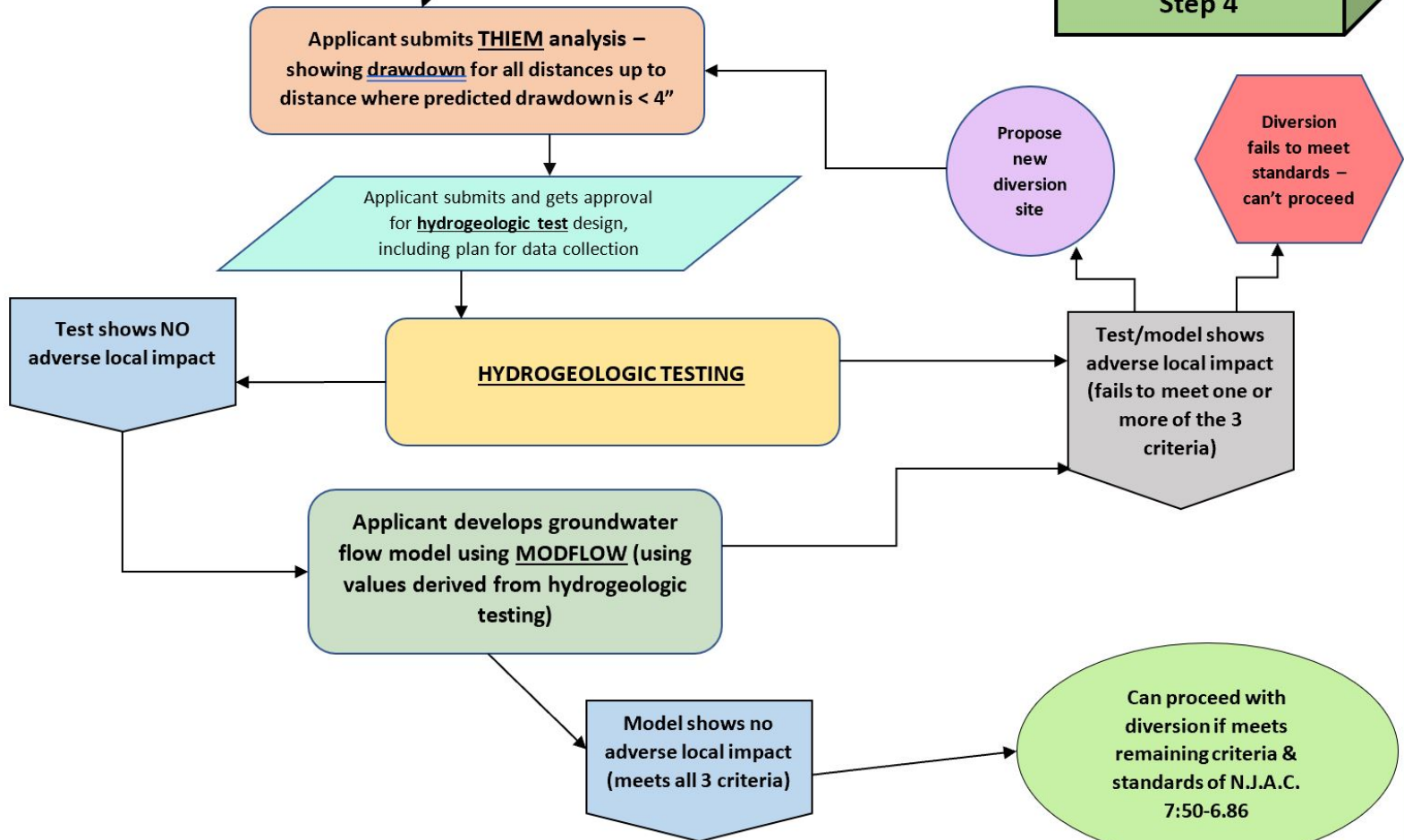
STEP 4: Applicant establishes whether there is **ADVERSE LOCAL IMPACT**: N.J.A.C. 7:50-6.86(d)7

Drawdown of water table:

- Preservation Area District, Forest Area or Special Agricultural Production Area (in affected HUC-11 watershed)
- more than 4" of the wetland nearest to estimated zone of influence (in affected HUC-11 watershed)

Intra-basin transfer
Diversion greater than 50,000 GPD

Step 4



APPLICATION FEE AMENDMENTS

- CURRENT RULE
 - % CONSTRUCTION COSTS
- REVISED RULE
 - \$6,000 FOR K-C WELLS >50,000 GPD
 - \$1,000 FOR ALL OTHER WELLS (GEOTHERMAL, NON-KC, ETC.)
 - ESCROW TO FUND REVIEW OF HYDROGEOLOGIC ANALYSES & MODELING

NEXT STEPS

- MAY 2022 P&I COMMITTEE REVIEWS RULE PROPOSAL
- JUNE 2022 COMMISSION REVIEWS AND AUTHORIZES RULE PROPOSAL
- JULY 2022 RULE PROPOSAL PUBLISHED IN NEW JERSEY REGISTER
- SEPTEMBER 2022 PUBLIC HEARING
- SEPTEMBER 2022 END OF 60-DAY COMMENT PERIOD
- OCTOBER 2022 P&I COMMITTEE REVIEWS RULE ADOPTION
- NOVEMBER 2022 COMMISSION REVIEWS PUBLIC COMMENT AND ADOPTS RULES
- NOVEMBER 2022 ADOPTION NOTICE FILED WITH OFFICE OF ADMINISTRATIVE LAW
- EARLY 2023 AMENDMENTS TAKE EFFECT

QUESTIONS

