TOWNSHIP OF UPPER DEERFIELD

RESOLUTION 25-58

RESOLUTION DECLARING THE TOWNSHIP OF UPPER DEERFIELD, COUNTY OF CUMBERLAND'S, FOURTH ROUND AFFORDABLE HOUSING PRESENT NEED AND PROSPECTIVE NEED NUMBERS

WHEREAS, on March 20, 2024, Governor Murphy signed into law an Amendment to the Fair Housing Act (N.J.S.A. 52:27D-301 *et seq.*) (hereinafter "Amended FHA"); and

WHEREAS, pursuant to the Amended FHA, municipalities are required to determine the Present Need obligation (Rehabilitation) and Prospective Need obligation (New Construction) of their fair share of the regional need for affordable housing ("**Fair Share Obligation**") during the 10-year period beginning on July 1, 2025 (the "**Fourth Round**"); and

WHEREAS, pursuant to the Amended FHA, should a municipality determine its Fair Share Obligation by January 31, 2025, the municipality's determination shall be established by default and shall bear a presumption of validity beginning on March 1, 2025, unless challenged by an interested party on or before February 28, 2025; and

WHEREAS, the Amended FHA requires the Department of Community Affairs ("DCA") to produce estimates of fair share obligations on or before October 20, 2024; and

WHEREAS, the DCA issued a report on October 18, 2024 ("DCA Report") wherein it reported its estimate of the obligation for all municipalities based upon its interpretation of the standards in the Amended FHA; and

WHEREAS, pursuant to Section 3.e of P.L. 2024, c. 2, the estimates in the DCA Report are not binding upon municipalities and instead pursuant to Section 3.f of the aforesaid law, each municipality is to determine its own, "present and prospective fair share obligation in accordance with the formulas established in sections 6 and 7 of P.L. 2024, c.2"; and

WHEREAS, the Township of Upper Deerfield has commissioned, among other municipalities, its Consulting Planner of the firm Clarke Caton Hintz, P.C., to create a state-wide model and Housing Region 6 allocations of Present Need and Prospective Need utilizing the formulas in Sections 6 and 7 of P.L. 2024, c. 2, in accordance with the provisions thereof; and

WHEREAS, through meticulous adherence to P.L. 2024, c. 2, and the March 8, 2018, unpublished decision of In Re Application of Municipality of Princeton, decided by the Honorable Mary C. Jacobson, A.J.S.C. as required by the law, the Consulting Planner determined that Upper Deerfield's Present Need is 19 units and its Prospective Need is 75 units/credits; and

WHEREAS, the Amended FHA further provides that "[a]ll parties shall be entitled to rely upon regulations on municipal credits, adjustments, and compliance mechanisms adopted by COAH unless those regulations are contradicted by statute, including P.L. 2024, c.2, or binding court decisions" (N.J.S.A. 52:27D-311(m)); and

WHEREAS, COAH regulations authorize vacant land adjustments as well as durational adjustments; and

WHEREAS, based on the foregoing, Township of Upper Deerfield accepts the alternative calculations prepared by Clarke Caton Hintz, P.C., for the Township of Upper Deerfield's fair share obligations and commits to its fair share of 19 units of Present Need and 75 units/credits of Prospective Need subject to any vacant land and/or durational adjustments it may seek as part of the Housing Plan Element and Fair Share Plan it subsequently submits in accordance with the Amended FHA; and

WHEREAS, pursuant to the Amended FHA, any challenge to a municipality's determination must be initiated through the Affordable Housing Alternative Dispute Resolution Program (the "Program") by February 28, 2025, shall explain with particularity how the municipality's calculation fails to comply with N.J.S.A. 52:27D-304.2 and 52:27D-304.3, and include the challenger's own calculation of the fair share obligations in compliance with said sections; and

WHEREAS, pursuant to the Amended FHA, the Program shall resolve all challenges to a municipality's determination of its Fourth Round obligation by March 31, 2025, during which time the municipality shall retain its immunity from exclusionary zoning lawsuits; and

WHEREAS, Township of Upper Deerfield reserves the right to comply with any additional amendments to the FHA that the Legislature may enact; and

WHEREAS, Township of Upper Deerfield also reserves the right to adjust its position in the event of any rulings in the *Montvale* case (MER-L-1778-24) or any other such action that alters the deadlines and/or requirements of the Amended FHA; and

WHEREAS, in the event that a third party challenges the calculations provided for in this Resolution, Township of Upper Deerfield reserves the right to take such position as it deems appropriate in response thereto, including that its Fourth Round Present or Prospective Need Obligations should be lower than described herein; and

WHEREAS, in addition to the above, the Acting Administrative Director issued Directive #14-24, dated December 13, 2024, and made the directive available later in the week that followed; and

WHEREAS, pursuant to Directive #14-24, a municipality seeking a certification of compliance with the FHA shall file an action in the form of a declaratory judgment complaint . . . . in the county in which the municipality is located . . . . within 48 hours after adoption of the municipal resolution of fair share obligations, or by February 3, 2025, whichever is sooner"; and

WHEREAS, Township of Upper Deerfield seeks a certification of compliance with the FHA and, therefore, directs Rocco Tedesco, Esq., Township Solicitor, to file a declaratory relief action within 48 hours of the adoption of this resolution in Cumberland County Superior Court.

NOW, THEREFORE, BE IT RESOLVED on this 21st day of January, 2025 by the Township Committee of the Township of Upper Deerfield as follows:

1. All of the above Whereas Clauses are incorporated into the operative clauses of this resolution.

2. The Township of Upper Deerfield hereby commits to a Fourth Present Need Obligation of 19 units and the Fourth Round Prospective Need Obligation of 75 units/credits as determined by Clarke Caton Hintz, P.C., and fully explained in, Determination of the Allocation of Fourth Round Affordable Housing Numbers to New Jersey Municipalities: Methodology and Rationale, dated January 10, 2025, attached hereto.

3. The Township of Upper Deerfield hereby directs Rocco Tedesco, Esq., Township Solicitor, to file a declaratory judgment complaint in Cumberland County within 48 hours after adoption this resolution.

4. The Township of Upper Deerfield authorizes its Township Solicitor to attach this resolution and methodology as exhibits to the declaratory judgment action that is filed and to submit and/or file same with the Program or any other such entity as may be determined to be appropriate.

5. The Township of Upper Deerfield hereby directs Roy J. Spoltore, RMC, Township Clerk, to publish this resolution on the municipal website within 48 hours after adoption of this resolution.

6. This resolution shall take effect immediately, according to law.

Moved By: James Crilley

Seconded By: Joseph Spoltore

VOTING	In Favor	Against	Abstain	Absent
James P. Crilley	X			
John L. Daddario	X			
Thomas Speranza	X			
Joseph Spoltore	X			
William Whelan				X

CERTIFICATION

I hereby certify that the foregoing is a true copy of the Resolution adopted by the Township Committee of the Township of Upper Deerfield, in the County of Cumberland, at a meeting thereof held January 29, 2025.

Roy J. Spoltore, Township Clerk

Determination of the Allocation of Fourth Round Affordable Housing Numbers to New Jersey Municipalities: Methodology and Rationale

January 10, 2025

Clarke Caton Hintz | 100 barrack street | Trenton, NJ | 08608

Clarke Caton Hintz

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Determination of the Allocation of Fourth Round Affordable Housing Numbers to New Jersey Municipalities: Methodology and Rationale[1]

Introduction

This report provides a methodology for the determination of municipal affordable housing obligations in accordance with P.L. 2024, c. 2, signed into law on March 20, 2024, that significantly amended the New Jersey Fair Housing Act (P.L. 1985, c.222). The legislation's key effect is to set forth the policies, requirements and procedures for conducting what is known as the "Fourth Round" and subsequent rounds of affordable housing obligations stemming from the Mount Laurel Doctrine. Succinctly stated, the Doctrine requires equal housing opportunity for all income classes of people throughout the state as expressed in municipal land development regulations.

Unlike previous rounds of municipal affordable housing obligations, the number of units allocated to each municipality for the Fourth Round from a state agency or department will have no official status. Instead, the law decrees that the Fourth Round and subsequent affordable housing allocations calculated by the New Jersey Department of Community Affairs (DCA) are to be considered advisory only[2]. Municipalities are required by themselves to determine their own affordable housing obligations by binding resolution passed no later than January 31, 2025[3]. Municipalities may accept the allocations issued by DCA on October 18, 2024,[4] but are not required to do so. The new law prescribes some components of how the allocations are to be calculated, but also leaves much to the discretion of DCA or any other entity, including this firm, as to how the Present Need and the Prospective Need are to be calculated and divided among municipalities. In order for one municipality to determine its own numbers, all of the municipalities of the state must be analyzed. Because this is a highly technical task, Clarke Caton Hintz has undertaken this work so each of our clients will have a Present Need and Prospective Need number to compare with the DCA number. To DCA's credit, the agency has provided the means for their work to be reviewed and to determine how they arrived at their results, including the geographic information system (GIS) layers necessary to conduct the Land Capacity Analysis. This report is to explain in detail how we arrived at the results that we did. At numerous steps, a decision is required to proceed to the next step. Here, these decision points are presented and the firm's rationale provided so that our work is fully explained.

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1 - This report was produced for the firm's clients and is intended for the sole purpose of providing information for their decision making.

2 - Section 3.d of P.L. 2024, c.2.

3 - Section 3.f(1)(a) of P.L. 2024, c.2.

4 - Affordable Housing Obligations for 2025-2035 (Fourth Round) Methodology and Background, prepared by DCA, document undated however published October 18, 2024. See also: https://www.nj.gov/dca/dlps/pdf/FourthRoundCalculation_Methodology.pdf

Under the new law, any method for calculating the allocations and the datasets that are not explicitly addressed by the law, are directed to utilize the March 8, 2018, unpublished decision of In Re Application of Municipality of Princeton, decided by the Honorable Mary C. Jacobson, A.J.S.C. (retired, but appointed to the Affordable Housing Dispute Resolution Program (the "Program")), which will be referred to as the "Jacobson Decision"[5]. This decision followed a lengthy trial in 2017 on the Third Round Present Need, Prospective Need and Gap Period methodologies, in which experts representing municipal interests and interested parties, including Fair Share Housing Center, and Special Methodology Master[6] Richard Reading for the Court, testified as to the means whereby the Third Round affordable housing numbers could be determined. Because of Clarke Caton Hintz's extensive work in this field, spreadsheets, datasets, and workbooks from the experts archived by the firm were consulted on any finer points of the Third Round calculations where either the law or the Jacobson Decision were unclear as to the means and methods used.

Overview of the Process of Developing Affordable Housing Numbers

The steps for calculating Present Need and Prospective Need affordable housing obligations for the Fourth Round and allocating them to municipalities are presented below. This report follows this outline in discussing the firm's methodology.

1. Calculate Present Need
    a. Determination of the Two Points in Time
    b. Calculate Low- and Moderate-Income Deficient Households
    c. Verify PUMA Boundaries for Salem, Cumberland, and Gloucester Counties
2. Calculate Regional Prospective Need
3. Allocation of Regional Prospective Need to Municipalities
    a. Determine Qualified Urban Aid Municipalities
    b. Calculate the Equalized Nonresidential Valuation Factor
    c. Calculate the Income Capacity Factor
    d. Calculate the Land Capacity Factor
    e. Calculate Averaged Allocation Factor and Municipal Prospective Need

In addition, Section 4 of this report provides a more detailed explanation of how our firm

[5] – In re Municipality of Princeton, MER-L-1550-15 (Law Div. Mar. 8, 2018)
[6] - Now referred to as Special Adjudicators

calculated deficient units compared to the approach used by DCA. Section 5 lists the data sources used in our analysis.

1. Calculate Present Need

The calculation of municipal Present Need is spelled out in P.L. 2024, c.2, "Municipal Present Need for each 10-year round of affordable housing obligations shall be determined by estimating the deficient housing units occupied by low- and moderate-income [LMI] households in the region, following a methodology similar to the methodology used to determine third round municipal present need[.]"[7]

Present Need is to be calculated using the most recent datasets made available through the federal decennial census and the American Community Survey (ACS), including the Comprehensive Housing Affordability Strategy (CHAS) dataset created by the federal Department of Housing and Urban Development (HUD). The CHAS dataset is created from custom tabulations of the ACS data that HUD receives from the U.S. Census Bureau each year. Its primary purpose is to determine the number of households in need of housing assistance[8]. It includes, for example, cost-burdened households, an estimate of "affordability mismatch" and other variables that are different than the definition of deficient housing in the statute. For example, CHAS data considers households that are overcrowded, whereas the statute considers households that are both overcrowded and more than 50 years old. In addition, the CHAS data defines low- and moderate-income households using HUD's Median Family Income (HMFI) limits, which differ slightly from the regional income limits historically used to regulate affordable housing in New Jersey.

One general way to consider the differences between the datasets is that CHAS data has been pre-analyzed and tabulated at the municipal-level; however, its income limits and indicators of housing deficiency differ slightly from those established by COAH and recognized as definitive through all prior Rounds by the agency itself and in judicial decisions. By contrast, the ACS provides raw data that can be analyzed to more closely measure the indicators of housing deficiency, however, some of these indicators must be estimated at the municipal-level using county/regional ratios. In the Jacobson Decision trial, neither set of experts utilized CHAS data in their calculations, but rather relied on data from the ACS. Moreover, the law refers to the methodology used to determine Present Need in the Third Round. Consequently, we calculated Present Need for the Fourth Round using ACS and not the CHAS, as this more closely follows the method used to determine Third Round Present Need.

The Jacobson Decision established that municipal Present Need is to be calculated for two points in time and then projected to the beginning of the Prospective Need period[9], which,

7 – Sections 6.a, 7.b and -c. of P.L. 2024, c. 2 (p.22). Page numbers from 2nd Reprint of Assembly Bill No. 4.
8 - https://www.huduser.gov/portal/datasets/cp/CHAS/bg_chas.html, accessed October 14, 2024
9 - Jacobson Decision, p. 38

for the Fourth Round, is 2025. The explanation below of the Present Need calculation is in two parts: first, how the two points in time were selected; and second, the means of calculating the number of LMI deficient households.

1.A. Determine Two Points in Time

The Present Need is derived by calculating the number of low- and moderate-income (LMI) households in deficient units for two points in time and performing a straight-line projection to 2025[10]. The Jacobson Decision does not specify the beginning and end points to use for this analysis; however, it provides the following guidance for how these years were determined for the Third Round:

> "Both Drs. Kinsey and Angelides[11] estimated municipal Present Need for two points in time and performed straight-line projections to the start of the Prospective Need period in 2015 ... Dr. Angelides calculated the municipal Present Need for 2000 and 2011 (mid-point of the five-year, 2009-2013 American Community Survey Public Use Microdata Sample [ACS PUMS] dataset) to project to Present Need to 2015 ... Dr. Kinsey calculated the municipal Present Need for 2000 and 2012 (mid-point of the five-year, 2010-2014 ACS PUMS dataset) to project Present Need to 2015." [12]

Based on this language, the mid-point of the Five-Year ACS data was used to represent the year of Present Need by the firm. The Five-Year ACS is based on survey responses collected continuously over five years, thus making the middle year the reference point for the time period covered. For the lower-bound year, both experts selected the 2000 U.S. Decennial Census data because this dataset contained the Public Use Microdata Sample (PUMS) data based on the long form of the U.S. Census[13]. The long form U.S. Census was discontinued after the 2000 Census and replaced with the American Community Survey beginning in 2005, which could be collected much more often and provide additional data. Accordingly, the experts in the Jacobson Decision had no choice but to start with the beginning point of 2000 as the ACS was not yet in operation.

The experts selected different endpoints: One used 2011 and the other 2012. The Jacobson Decision indicated a preference for more recent data in a different part of the trial regarding the Prospective Need calculations: "Upon considering all of the alternatives, [Special Adjudicator Reading] endorsed Dr. Angelides' approach, but adjusted it to project from 2015, the beginning of the Prospective Need period, instead of 2014, because more recent data was

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10 - A straight-line projection is calculated as a constant rate of change over time. In the CCH model, municipal Present Need estimates determined to be negative were adjusted to zero.

11 - The main experts in this trial included Dr. Peter Angelides of Econsult Solutions, Inc., representing a municipal consortium; and Dr. David Kinsey, representing Fair Share Housing Center.

12 - Jacobson Decision, p. 38-39

13 - See History of Public Use Microdata Areas (PUMAS): 1960-2000 https://www2.census.gov/geo/pdfs/reference/puma/puma_history.pdf

now available that coincided with the start of the period."[14]

This report uses 2020 as the endpoint of the Present Need calculation, representing the mid-point of the 2018-2022 five-year ACS because 2022 is the most recent available dataset at the time of completing the analysis, as well as, issued at the same time the DCA methodology[15]. Since the length of time for the housing period is 10 years, this report uses the beginning point in 2010, as it is the mid-point of the 2008-2012 five-year ACS. Table 1 summarizes the two chosen points in time, the associated dataset, and the regional income limits used to determine which households were low- and moderate-income. The five-year ACS includes household income information projected to the final year of the survey (2012 and 2022, respectively). To be consistent with these household incomes, the Present Need calculations used the 2012 and 2022 regional income limits from these respective years.

Table 1. Summary of Present Need Datasets

Present Need Year	Dataset	Regional Income Limits
2010	ACS 2008-2012	2012 (COAH)
2020	ACS 2018-2022	2022 (AHPNJ)

Note: COAH – New Jersey Council on Affordable Housing
AHPNJ – Affordable Housing Professionals of New Jersey

1.B. Calculate LMI Households, Deficient Units

For both points in time, it is necessary to calculate the number of deficient housing units occupied by LMI households. A deficient housing unit[16] is characterized in the new legislation as exhibiting any one of the following: (1), is over 50 years old and overcrowded[17]; (2) lacks complete plumbing; or (3) lacks complete kitchen facilities.

In order to calculate Present Need accurately, it is necessary to determine unique, non-overlapping counts of the three types of deficient housing. For example, if a municipality contains 100 homes that lack complete plumbing and 50 homes that lack complete kitchens, there may be certain houses that lack both plumbing and kitchen facilities. Double-counting of units must be determined and removed from the total.

The Jacobson Decision does not describe in detail the method for distinguishing the different types of deficient housing.[18] The Jacobson Decision explains that both experts used similar

[14] - Jacobson Decision, p. 60-61. During the trial, the 2015 ACS became available.
[15] - Since the firm's model was completed, the 2023 ACS became available on December 12, 2024.
[16] - Section 2 of P.L. 2024, c.2.
[17] - Overcrowded means housing that contains more than one person per room.
[18] - The Jacobson Decision explains that both experts used ACS PUMS data in their analyses (p. 38). As described in this paper, the actual method involved the use of both municipal-level ACS data and ACS PUMS data.

approaches to determine the number of deficient housing units, with the key difference being the cut-off year for determining an "old" housing unit, and ultimately endorsed the approach used by Dr. Angelides of Econsult Solutions, Inc.[19] Because the Court showed a clear preference for Econsult's calculation of deficient housing units (and in the absence of clear direction from the case itself), this report utilizes the Econsult approach.[20]

The ACS dataset provides municipal-level data for two of the three types of deficient housing: homes lacking plumbing and homes that are old and overcrowded.[21] The main limitation to this dataset is that the ages of the structures are listed as either before 1940, between 1940 and 1949, or after 1949. However, in this analysis, the cut-off years for determining an "old" housing unit are 1960 or 1970 (50 years from 2010 and 2020, respectively).

First, the full number of homes lacking plumbing are counted as reported in the ACS. Secondly, an estimate was determined for the number of overcrowded homes with complete plumbing facilities that were built after 1949 and before the appropriate cut-0ff year (1960 or 1970). This is accomplished by: 1), creating a municipal-specific ratio[22] of homes built between 1950 and the cut-off year to all post-1949 homes; 2), multiplying that ratio by the number of post-1949 homes that are overcrowded and contain plumbing; and 3), adding that figure to the number overcrowded homes with plumbing built before 1950.[23] A summary of this computation is presented in Table 2 and Figure 1 below.

Table 2. Estimated Years for Overcrowded Homes with Complete Plumbing Facilities

Present Need Year	Years Known	Years Estimated
2010	Built 1949 or Earlier	Built After 1949 and Before 1960
2020	Built 1949 or Earlier	Built After 1949 and Before 1970

19 - The court adopted "Dr. Angelides' approach, concluding that it makes more sense to determine if a housing unit is 'old' at the time it is being counted, rather than if it will be 'old' at a particular time in the future" (Jacobson Decision, p. 40). Therefore, in our analysis, housing units being counted in 2020 are old if they were built before 1970, and housing units counted in 2010 are old if they were built before 1960.

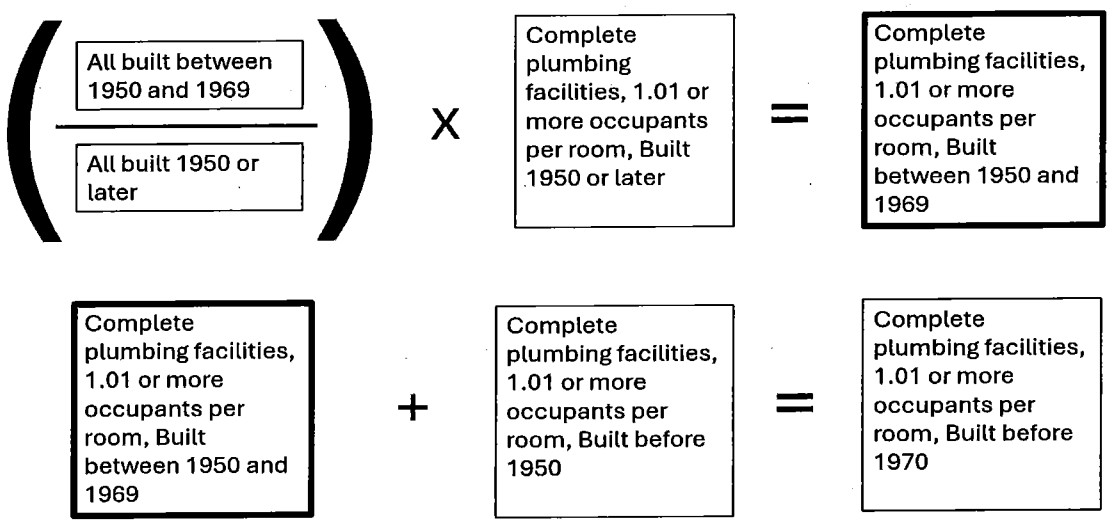
20 - ESI Affordable Housing Model, prepared by Peter A. Angelides, Econsult Solutions, Inc., dated May 16, 2016.

21 - Table B25050: Plumbing Facilities by Occupants Per Room by Year Structure Built. The ACS does not offer municipal-level data on homes lacking kitchens that do not overlap with the first two categories.

22 - This municipal-level ratio was created using ACS Table B25036, Year Structure Built.

23 - See also, New Jersey Affordable Housing Obligations, prepared by Peter A. Angelides, Econsult Solutions, Inc., dated May 16, 2016, p. 20 for a discussion of this method.

Figure 1. Diagram of "Old and Overcrowded" Municipal Calculation for 2020



The ACS does not offer municipal-level data on homes lacking kitchens that do not overlap with the first two categories. To address this, both experts from the Jacobson Decision trial used five-year ACS PUMS data, which allows for more detailed tabulations based on multiple criteria. While PUMS data is not available at the municipal level, it is available for larger regions called Public Use Microdata Areas (PUMAs), which correspond to county or census tract boundaries. Each county in New Jersey typically contains several PUMAs, with the exception of Salem, Cumberland, and Gloucester Counties (discussed further in Section 1.B.1). By using PUMS data, county-specific ratios were calculated for homes lacking kitchens and then applied to the municipal data to estimate the number of housing units in each municipality lacking complete kitchen facilities.

Units which are old and overcrowded make up the largest share (68%) of the total deficient housing units in the state. Between 2010 and 2020, the total number of deficient housing units declined slightly from 96,373 to 94,774 units, as shown in Table 3.

Table 3. Total Deficient Households, 2010-2020

Criteria Satisfied	Old and Overcrowded	Lacks Kitchen	Lacks Plumbing	2010 (2008-2012 ACS PUMS)		2020 (2018-2022 ACS PUMS)	
				Count	Percent	Count	Percent
1	X			65,778	68.3%	64,436	68.0%
1		X		14,613	15.2%	19,317	20.4%
2		X	X	10,757	11.2%	6,587	7.0%
1			X	3,838	4.0%	3,043	3.2%

Criteria Satisfied	Old and Overcrowded	Lacks Kitchen	Lacks Plumbing	2010 (2008-2012 ACS PUMS)		2020 (2018-2022 ACS PUMS)	
				Count	Percent	Count	Percent
2	X	X		607	0.6%	790	0.8%
3	X	X	X	664	0.7%	396	0.4%
2	X		X	116	0.1%	205	0.2%
			Total	96,373	100.0%	94,774	100.0%

Once the total number of deficient households is determined, the next step is to estimate the proportion of these homes that are occupied by low- and moderate-income households. A county-level ratio[24] of deficient homes occupied by low- and moderate-income households is developed from PUMS data. These ratios were then applied to the municipal-level counts of deficient housing. The income limits for determining a low- and moderate-income household are based on the regional income limits that were identified in Table 1 and are published annually by the Affordable Housing Professionals of New Jersey and that were previously published by the Council on Affordable Housing[25].

1.C. Verify PUMA Boundaries for Salem, Cumberland, and Gloucester Counties

The boundaries of Public Use Microdata Areas (PUMAs) are updated every ten years after each decennial census.[26] Among the requirements for creating these boundaries, each PUMA must have a population of 100,000 or more.[27] In almost all of New Jersey, PUMA boundaries generally align with county boundaries, with the exception of Salem County, because it has a population of less than 100,000. Consequently, the U.S. Census Bureau created PUMAs by combining Salem County with portions of either Gloucester County or Cumberland County for different Census periods. As illustrated in the Figure 2 below, the 2005-2011 boundaries combine all of Salem County and most of Gloucester County (PUMA 02202). For the 2012-2021 period, the boundaries were revised where Salem County was combined with a portion

24 - Per the Jacobson Decision (p. 38), each expert multiplied the "count of unique deficient housing units by the appropriate county's share of regional LMI households to estimate Present Need for each municipality."

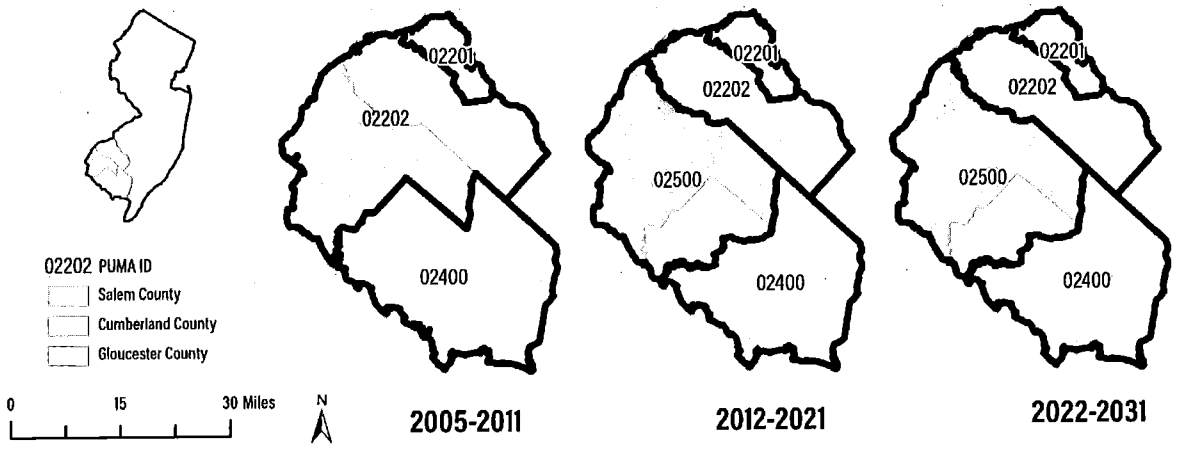
25 - In the Jacobson Decision (p. 73-74), the court endorsed the use of an "income grid" which is developed using median income thresholds established by the Department of Housing and Urban Development (HUD). The income grid is prepared in accordance with COAH's methodology at N.J.A.C. 5:93-7.4(b). Since Mount Laurel IV and earlier, the Affordable Housing Professionals of New Jersey have published annual Regional Income Limits using COAH's calculations. These Regional Income Limits have been recognized by various courts in the Third Round as providing equivalent charts to COAH's income limit tables.

26 - IPUMS USA, accessed October 2024, https://usa.ipums.org/usa/volii/pumas20.shtml.

27 - Understanding and Using the American Community Survey Public Use Microdata Sample Files, prepared by the United States Census Bureau, dated February 2021. https://www.census.gov/content/dam/Census/library/publications/2021/acs/acs_pums_handbook_2021.pdf.

of Cumberland County (PUMA 02500). No additional changes occurred in this area of New Jersey with the 2022-2031 boundary update.

Figure 2. PUMA Boundaries 2005-2011, 2012-2021, and 2022-2031



In order to calculate the "kitchen ratio" and "LMI ratio" for 2010 (previously described in step 1.B.), the firm used the 2008-2012 five-year ACS PUMS dataset. Because this dataset spans two decennial censuses, the first four years of the survey were collected using the 2005-2011 time period utilizing one geographic area, and the last year was collected using the 2012-2021 period utilizing the revised geographic area. Consequently, this dataset combines data from Salem and Gloucester Counties as well as from Salem and Cumberland Counties. This issue was not addressed during the Jacobson Decision trial, despite both experts having used five-year ACS data that spanned the 2000's and 2010's. In addition, neither expert described how they addressed this issue in their methods documents.[28]

Based on a review of Econsult's spreadsheet[29], data associated with each PUMA was attributed entirely to one county or the other. There is no indication that data from a PUMA was "split" and apportioned to two or more counties. Without additional information about the characteristics and geographic distribution within each county, it is not possible to divide PUMA data accurately between counties in a way that can be statistically verified. Table 4 below summarizes how the PUMAs across each of these three counties were assigned in order to determine Present Need for 2010 and 2020.

[28] - New Jersey Fair Share Housing Obligations for 1999-2025 (Third Round) Under Mount Laurel IV for Mercer County, prepared by David Kinsey for and in collaboration with Fair Share Housing Center, dated April 1, 2016; and New Jersey Affordable Housing Obligations, prepared by Peter A. Angelides, Econsult Solutions, Inc., dated May 16, 2016.

[29] - ESI Affordable Housing Model, prepared by Peter A. Angelides, Econsult Solutions, Inc., dated May 16, 2016.

Table 4. PUMA Aggregation for Salem, Cumberland and Gloucester Counties

PUMA	Gloucester	Cumberland	Salem
2010 Present Need			
02201 ('05-'11)	X		
02201 ('12-'21)	X		
02202 ('05-'11)	X		
02202 ('12-'21)	X		
02400 ('05-'11)		X	
02400 ('12-'21)		X	
02500 ('12-'21)			X
2020 Present Need			
02201 ('12-'21)	X		
02201 ('22-'31)	X		
02202 ('12-'21)	X		
02202 ('22-'31)	X		
02400 ('12-'21)		X	
02400 ('22-'31)		X	
02500 ('12-'21)			X
02500 ('22-'31)			X

Note that PUMA 02202 (2005-2011) encompasses all of Salem County and most of Gloucester County. Despite Salem County being the larger geographic portion, this PUMA was attributed to Gloucester County because the Gloucester portion contains a larger number of households than Salem. Although this solution is imperfect, it prioritizes a larger sample size attributable to Gloucester County to enhance data reliability. The drawbacks of this decision, however, are that a) it reduces Salem County's sample size, and b) it introduces potential inaccuracy into the Gloucester data by mixing it with Salem's characteristics. Despite this, considering the constraints of the PUMA data, on balance this approach represents the most effective use of the available information while acknowledging its limitations.

2. Calculate Regional Prospective Need

The new law at P.L. 2024, c. 2 provides the following instructions on how to calculate regional Prospective Need: "Projected household change for a 10-year round in a region shall be estimated by establishing the household change experienced in the region between the most

recent federal decennial census, and the second-most recent federal decennial census. This household change, if positive, shall be divided by 2.5 to estimate the number of low- and moderate-income homes needed to address low- and moderate-income household change in the region, and to determine the regional Prospective Need for a 10-year round of low- and moderate-income housing obligations. If household change is zero or negative, the number of low- and moderate-income homes needed to address low- and moderate-income household change in the region and the regional Prospective Need shall be zero."[30] Note that the six housing regions remain the same from previous rounds.

A summary of the Fourth Round Regional Prospective Need calculation is presented in Table 5 (note multiplying by .40 equals dividing by 2.5).

Table 5. Fourth Round Regional Prospective Need

Region	2010 Census Households	2020 Census Households	Household Change 2010-2020	Multiply by .40	Estimated LMI Households 2025-2035
1	803,704	873,062	69,358	.40	27,743
2	693,844	745,108	51,264	.40	20,506
3	446,114	475,123	29,009	.40	11,604
4	588,249	622,803	34,554	.40	13,822
5	461,569	484,404	22,835	.40	9,134
6	220,880	225,602	4,722	.40	1,889
TOTAL	3,214,360	3,426,102	211,742	.40	84,697

3. Allocate Regional Prospective Need to Municipalities

Each municipality's share of the regional Prospective Need is an average of three factors, discussed further below: the equalized nonresidential valuation factor, the income capacity factor, and the land capacity factor.

3.A. Determine Qualified Urban Aid Municipalities

Qualified Urban Aid Municipalities (QUAMs) are exempt from receiving a Prospective Need allocation and thus do not share in the regional obligation. Per the new law, a municipality is a QUAM if the municipality, as of July 1 of the year prior to the beginning of a new round, is designated to receive state urban aid and meets at least one additional criterion[31]:

a) The ratio of substandard existing deficient housing units currently occupied by low-

[30] - Section 7, P.L. 2024, c. 2, p.21
[31] - Section 7.c(1), P.L. 2024, c.2, p.22

and moderate-income households within the municipality, compared to all existing housing in the municipality, is greater than the equivalent ratio in the region;

b) The municipality has a population density greater than 10,000 persons per square mile of land area; or

c) The municipality has a population density of more than 6,000, but less than 10,000 persons per square mile of land area, and less than 5% vacant parcels not used as farmland, as measured by the average of:

   i. The number of vacant land parcels in the municipality as a percentage of the total number of parcels in the municipality; and

   ii. The valuation of vacant land in the municipality as a percentage of total valuations in the municipality.

Sixty-two municipalities were identified as eligible to receive state aid in 2024[32]. The additional analyses necessary to conclude whether these municipalities were exempt from a Prospective Need allocation include:

- Criterion A. Determining the ratio between a municipality's 2025 Present Need (calculated in steps 1A and 1B) and its total number of dwellings (occupied and vacant housing units) and comparing that to the equivalent ratio for the region. In this step of the analysis, if a municipality had a 2025 Present Need that was negative, it was adjusted to zero.

- Criterion B. Dividing a municipality's 2022 population (derived from the 2018-2022 five-year ACS) by a municipality's land area (calculated in geographic information Systems [GIS] as the total municipal area minus areas classified as water in the 2020 Land Use/Land Cover data set) to arrive at population density.

- Criterion C. Using the population density calculation from Criterion B., obtaining information on vacant land parcels and their valuation from the 2023 Property Tax Information guide published by the Local Government Services division of DCA.

Forty-eight of the 62 state aid municipalities meet at least one of the three criteria and are therefore QUAMs. Table 6 lists the state aid and Qualified Urban Aid Municipalities, including the criteria satisfied. Comparing these results to the list of QUAMs identified in the Third

32 - https://www.nj.gov/dca/dlgs/Muni_StateAid.shtml, NJ Department of Community Affairs, SY 2024

Round[33], eight municipalities are new to the list of Qualified Urban Aid Municipalities and eight other municipalities previously on the list no longer qualify.

Table 6. CCH Qualified Urban Aid Municipalities, 3rd to 4th Round

Region	County	Municipality	Criteria			QUAM	3rd/4th Rd.
			A	B	C		
1	Bergen	Bergenfield Borough	X		X	X	4th
1	Bergen	Cliffside Park Borough		X		X	4th
1	Bergen	Garfield City	X	X		X	3rd and 4th
1	Bergen	Hackensack City	X	X		X	3rd and 4th
1	Bergen	Lodi Borough	X	X		X	3rd and 4th
1	Hudson	Bayonne City	X	X		X	3rd and 4th
1	Hudson	Harrison Town		X		X	4th
1	Hudson	Hoboken City		X		X	3rd and 4th
1	Hudson	Jersey City	X	X		X	3rd and 4th
1	Hudson	Kearny Town	X			X	4th
1	Hudson	North Bergen Township	X	X		X	3rd and 4th
1	Hudson	Union City	X	X		X	3rd and 4th
1	Hudson	Weehawken Township		X		X	3rd and 4th
1	Hudson	West New York Town	X	X		X	3rd and 4th
1	Passaic	Clifton City			X	X	3rd and 4th
1	Passaic	Passaic City	X	X		X	3rd and 4th
1	Passaic	Paterson City	X	X		X	3rd and 4th
2	Essex	Belleville Township		X		X	3rd and 4th
2	Essex	Bloomfield Township			X	X	3rd and 4th
2	Essex	City of Orange Township	X	X		X	3rd and 4th
2	Essex	East Orange City	X	X		X	3rd and 4th
2	Essex	Irvington Township	X	X		X	3rd and 4th
2	Essex	Montclair Township			X	X	3rd and 4th
2	Essex	Newark City	X	X		X	3rd and 4th
2	Essex	Nutley Township			X	X	4th
2	Union	Elizabeth City	X	X		X	3rd and 4th
2	Union	Hillside Township			X	X	3rd and 4th

33 - Methodology Worksheet Low- and Moderate-Income Housing Needs, Municipality of Princeton and West Windsor Township, Mercer County, New Jersey, prepared by Richard B. Reading Associates, dated March 19, 2018.

Region	County	Municipality	Criteria			QUAM	3rd/4th Rd.
			A	B	C		
2	Union	Plainfield City	X		X	X	3rd and 4th
2	Union	Rahway City			X	X	3rd and 4th
2	Union	Roselle Borough			X	X	3rd and 4th
2	Warren	Phillipsburg Town					3rd
3	Middlesex	Carteret Borough	X			X	3rd and 4th
3	Middlesex	New Brunswick City	X	X		X	3rd and 4th
3	Middlesex	Perth Amboy City	X	X		X	3rd and 4th
3	Middlesex	Woodbridge Township	X			X	3rd and 4th
4	Mercer	Trenton City	X	X		X	3rd and 4th
4	Monmouth	Asbury Park City	X	X		X	3rd and 4th
4	Monmouth	Long Branch City					3rd
4	Monmouth	Neptune City Borough					3rd and 4th
4	Monmouth	Neptune Township	X			X	4th
4	Ocean	Brick Township					3rd and 4th
4	Ocean	Lakewood Township	X			X	3rd and 4th
5	Burlington	Mount Holly Township	X			X	4th
5	Burlington	Willingboro Township					3rd
5	Camden	Camden City	X			X	3rd and 4th
5	Camden	Gloucester City	X			X	3rd and 4th
5	Camden	Lindenwold Borough	X			X	3rd and 4th
5	Camden	Pennsauken Township	X			X	3rd and 4th
5	Gloucester	Glassboro Borough	X			X	4th
5	Gloucester	Monroe Township					3rd
5	Gloucester	Woodbury City	X			X	3rd and 4th
6	Atlantic	Atlantic City	X			X	3rd and 4th
6	Atlantic	Pleasantville City	X			X	3rd and 4th
6	Cumberland	Bridgeton City	X			X	3rd and 4th
6	Cumberland	Millville City					3rd
6	Cumberland	Vineland City					3rd
6	Salem	Penns Grove Borough					3rd
6	Salem	Salem City					3rd

3.B. Calculate the Equalized Nonresidential Valuation Factor

Step 3.B is to calculate "the change in the municipality's nonresidential valuations [which] shall be divided by the regional total change in nonresidential valuation" [34]. The period for this calculation spans from 1999 (the start of the Third Round, as specified in the new law) to 2023 (the most recent year for which data is available from Local Government Services). For both years, the total value of each municipality's commercial and industrial parcels (property Class 4A and Class 4B) was summed, and then divided by the equalization ratio for that year to determine the equalized nonresidential value. The firm then summed the growth in nonresidential value for each region, and then calculated each municipality's share of its region's growth in nonresidential value.

3.C. Calculate the Income Capacity Factor

A municipality's income capacity factor is defined in the new law as the average of the following two measures[35]:

- Measure A. The municipal share of the regional sum of the differences between the median municipal household income, according to the most recent American Community Survey five-year estimates, and an income floor of $100 below the lowest median household income in the region (the specific municipality with the lowest median household income in the region is shown in the chart below); and
- Measure B. The municipal share of the regional sum of the differences between the median municipal household incomes and an income floor of $100 below the lowest median household income in the region, weighted by the number of the households in the municipality.

The income capacity factor was calculated using the 2018-2022 five-year ACS since 2022 was the most recent available dataset at the time of completing the analysis, as well as, issued at the same time the DCA methodology[36]. The income floors by region are summarized in Table 7. For Measure A of the income capacity factor calculation, the difference between the municipality's 2022 median household income and the income floor for the region was determined. [37] Next, the municipality's percent share of the regional total was then

[34] - Section 7.c(2), P.L. 2024, c.2, p.22
[35] - Section 7.c(3), P.L. 2024, c.2, p.23

[36] - Since the firm's model was completed, the 2023 ACS became available on December 12, 2024.
[37] - Page 13 of DCA's methodology report includes the following footnote, an approach also used in the firm's model: "Three municipalities, Walpack Township, Teterboro Borough, and Tavistock Borough did not have 2018-22 Median Household Income estimates available. As the Affordable Housing Law requires that 'the most recent American Community Survey Five-Year Estimates' be used, DCA used the most recently available ACS figures for these municipalities, which were 2008-12 for Tavistock, 2011-15 for Walpack, and 2015-19 for Teterboro. Six municipalities, Ho-Ho-Kus, Tavistock, Millburn, Rumson,

calculated. In Measure B, this difference was multiplied by the number of occupied households in the municipality. Lastly, each locality's percent share of the regional total was calculated. The final income capacity factor is the average of Measures A and B.

Table 7. Income Floors by Region

Region	Municipality	Lowest Median Household Income	Regional Income Floor
1	Paterson City, Passaic County	$52,092	$51,992
2	Newark City, Essex County	$46,460	$46,360
3	Perth Amboy City, Middlesex County	$56,239	$56,139
4	Trenton City, Mercer County	$44,444	$44,344
5	Camden City, Camden County	$36,258	$36,158
6	Penns Grove Borough, Salem County	$29,821	$29,721

3.D. Calculate the Land Capacity Factor

P.L. 2024, c. 2 includes a "land capacity factor" as the third component of determining the allocation of Prospective Need in the Fourth Round. The legislation describes this factor as follows:

> This factor shall be determined by estimating the area of developable land in the municipality's boundaries, and regional boundaries, that may accommodate development through the use of the "land use/land cover data" most recently published by the Department of Environmental Protection, data from the American Community Survey and Comprehensive Housing Affordability Strategy dataset thereof, MOD-IV Property Tax List data from the Division of Taxation in the Department of the Treasury, and construction permit data from the Department of Community Affairs, and weighing such land based on the planning area type in which such land is located. After the weighing factors are applied, the sum of the total developable land area that may accommodate development in the municipality, and in the region shall be determined. The municipality's share of its region's developable land shall be its land capacity factor. Developable land that may accommodate development shall be weighted based on the planning area type in which such land is located...(P.L. 2024, c. 2, Section 7.c(2)(b)(4))

The land capacity factor requires the most interpretation of the statute and is the most time

Chatham Borough, and Mountain Lakes, had median household incomes that were top-coded at 250,000 by the Census Bureau. The Census Bureau top-codes median household incomes above 250,000 to ensure privacy for individuals reporting high incomes."

intensive of the three factors used to determine municipal affordable housing obligations. Determining the inputs into the Land Capacity Factor involves examining the entire landscape of New Jersey utilizing GIS parcel data, state data layers primarily prepared by the NJ Department of Environmental Protection (DEP), tax assessment data for each parcel in the state, and aerial imagery.

1. Datasets in the New Legislation

The legislature's directive to use the ACS in determining the land capacity factor does not provide any insight as to the developability of land in specific municipalities. The ACS is a set of demographic characteristics that pertain to certain geographic areas, but those areas are not parcel specific. The smallest ACS areas are census tracts and even at that level, data are sometimes suppressed so as to not create readily identifiable characteristics of the people who live there. Furthermore, since the ACS generally concerns itself with persons, the persons that make up households, and the dwellings in which they reside, it cannot provide information related to vacant land or convertible farmland – a key component of calculating the land capacity factor. The CHAS, which is also based on the ACS and as previously noted is formed from special tabulations made by the U.S. Bureau of the Census for HUD, contains no information related to vacant land or convertible farmland, either. Consequently, these two datasets cannot be used to calculate the land capacity factor.

The statute also includes "construction permit data" from DCA as a dataset to be used in the calculation of the land capacity factor. On a monthly basis, the Division of Codes and Standards in DCA collects and publishes data from municipal construction code officials on the issuance of building permits that authorize the construction of buildings and other structures that are regulated by the Uniform Construction Code, N.J.A.C. 5:23[38]. The Construction Permit database[39] contains information concerning the issuance of construction permits (for both new construction and building alterations), demolition permits, and certificates of occupancy for residential and nonresidential construction that are referenced at the block and lot level. The statute is unclear if all three of the DCA reported types of permits fall under the meaning of "construction permit data." In the firm's model, any construction permits for "new" construction was treated as an indicator that a site has been committed for future development, and thus the land was no longer available. See also, Subsection 3.D(I).

2. Land Use/Land Cover Data versus Property Tax Data

38 - The enabling statute is the State Uniform Construction Code Act, N.J.S.A 52:27D-119.
39 - NJDCA Construction Permit database, accessed November 2024, https://data.nj.gov/Reference-Data/NJ-Construction-Permit-Data/w9se-dmra/about_data

The two datasets in P.L. 2024, c. 2, that are geographically based are the Land Use/Land Cover (LU/LC) GIS data layer (actually a set of data layers) published by DEP and the MOD-IV property tax data published by the Division of Taxation in the NJ Department of the Treasury, as described below:

- Land Use/Land Cover Data Layer. The 2020 LU/LC data layer is the seventh update in a series of land-use mapping efforts that began in 1986.[40] This information is generated using remote sensors in satellites that is downloaded to ground-based servers where it is processed into aerial imagery[41] and then classified by DEP into six broad categories: Agriculture, Barren Land, Forest, Urban, Water, and Wetlands. The state has also created sub-categories to further refine the general categories[42].

- MOD-IV Property Tax Data. The New Jersey Property Tax System, known as MOD-IV, was first implemented in 1966 and provides for the uniform preparation, maintenance, presentation and storage of the property tax information required by the New Jersey Constitution and the rules promulgated by the Division of Taxation at N.J.A.C 18:12-2 and -3[43]. Municipal tax assessors are typically responsible for maintaining property tax data through the MOD-IV online system, and enter information following the procedures in the MOD-IV User Manual. Updates follow from the added yearly assessments made in October of the year at issue.

The experts in the Jacobson Decision trial took different approaches to determining developable land, with Dr. Kinsey relying primarily on the LU/LC dataset and Dr. Angelides relying mainly on MOD-IV property tax data. Ultimately the Court endorsed the approach used by Dr. Kinsey and concluded that, "although Dr. Angelides' reliance on municipal block and lot classifications of land use instead of aerial surveys could offer a more accurate and up-to-date method, his approach depended upon classifications performed by individual municipal assessors, and therefore lacked statewide uniformity ... [the Court] recommended Dr. Kinsey's methodology as it conformed more closely to COAH's Second Round methodology."[44, 45] Dr. Kinsey's land capacity values were

40 - Land Use/Land Cover of New Jersey 2020, DEP Bureau of GIS, accessed September 2024 via https://gisdata-njdep.opendata.arcgis.com/datasets/2deaaa3cadd94166bdbff92a44ade284_5/about

41 - For additional information on remote sensing mapping method, refer to New Jersey Land Cover Change Analysis Project, prepared by Richard G. Lathrop, Rutgers University Center for Remote Sensing & Spatial Analysis, October 2000, accessed September 2024 via https://crssa.rutgers.edu/projects/lc/download/reportsdata72_84_95/njlcca.pdf

42 - The sub-categories are included in the GIS metadata found here: https://www.nj.gov/dep/gis/digidownload/metadata/lulc20/anderson2020.htm, accessed September 2024.

43 - MOD-IV User Manual, prepared by the New Jersey Department of Treasury, Division of Taxation, October 2019, accessed September 2024 via https://www.nj.gov/treasury/taxation/pdf/lpt/modIVmanual.pdf

44 - Jacobson Decision, p. 105

45 - In the Second Round, COAH's inventory of "undeveloped land" was determined primarily through land

prepared by researchers from Rutgers University and Rowan University who estimated the land "available for development" as the remainder after removing environmentally-sensitive lands.[46]

3. Combination of MOD-IV and Land Use/Cover Data to Determine Land Capacity

The model created by Clarke Caton Hintz primarily utilizes MOD-IV data because it provides the most information concerning the use of property. The Land Use/Land Cover information, on the other hand, is primarily an environmental resource tool and is not able to distinguish, for example, parcels that appear vacant, but in fact are common open space owned by a homeowner's association. Another compelling factor is that the MOD-IV database is updated yearly so that 2024 data are available, whereas the Land Use/Land Cover data layers, which take some time to interpret, reflect information gathered in 2020 yet just released in 2024. The Land Use/Land Cover data, however, does not provide the foundational concept of "developability" that is paramount in the legislation.

Land Use/Land Cover data was used in the model to positively identify wetlands and state open waters for elimination from being included as developable land in the allocation of dwelling units for prospective need.

4. "Developable" Land

The new law establishes that a municipality's land capacity factor "shall be determined by estimating the area of developable land in the municipality's boundaries, and regional boundaries, that may accommodate development." However, the term "developable" is not defined in the law.[47] In New Jersey's affordable housing policies and regulations, "developable" is defined as one of four site criteria for new construction at N.J.A.C. 5:93-1.3 that together were termed "suitable", including the term "suitable" itself. N.J.A.C. 5:93-1 et seq. are the 2nd Round Substantive Rules promulgated by COAH that have been used through numerous Mount Laurel Doctrine cases – including in the 3rd Round - even as COAH itself became dysfunctional. The four criteria of site suitability for new construction to address, typically, the prospective need obligation, are "approvable", "available", "developable" and "suitable". In N.J.A.C. 5:93-1.3, these are defined as

satellite (LANDSAT) data that was cross-checked using MOD-IV property tax data. See Jacobson Decision, p. 102 and 26 N.J.R. 2346, June 6, 1994.

46 - "Land considered restricted from development consisted of preserved open space, preserved farmland, steep slopes >15%, streams, water and wetlands buffered to 50 feet, Category 1 streams buffered to 300 feet, and already developed lands. The land areas remaining after this analysis, a total of about 1 million acres (999,649 acres), constituted the estimate of open land (i.e., undeveloped) "available" for development, as of 2007." New Jersey Fair Share Housing Obligations for 1999-2025 (Third Round) Under Mount Laurel IV for Mercer County, prepared by David Kinsey for and in collaboration with Fair Share Housing Center, dated April 1, 2016, p. 55.

47 - In the Second Round, COAH also did not use a formal definition of "developable," but generally explained the land capacity factor as "undeveloped land in the community that can accommodate development." Refer to 26 N.J.R. 2346, June 6, 1994

follows:

- Approvable means a site that may be developed for low- and moderate-income housing in a manner consistent with the rules or regulations of all agencies with jurisdiction over the site. A site may be approvable although not currently zoned for low- and moderate-income housing.

- Available means a site with clear title, free of encumbrances which preclude development for low- and moderate-income housing.

- Developable means a site that has access to appropriate water and sewer infrastructure, and is consistent with the applicable areawide water quality management plan (including the wastewater management plan) or is included in an amendment to the areawide water quality management plan submitted to and under review by DEP.

- Suitable means a site that is adjacent to compatible land uses, has access to appropriate streets and is consistent with the environmental policies delineated in N.J.A.C. 5:93-4.

In the context of the legislation, the term "developable" can reasonably be construed to mean the same as "site suitability" as used in COAH regulations that takes into consideration the four criteria of approvable, available, developable and suitable. In the absence of any other defining criteria, and the use of these criteria by COAH, and its acceptance in many Mount Laurel matters and Declaratory Judgment actions in the Third Round, these criteria offer the clearest interpretation of the legislative intent of what constitutes "developable" land.

Having made decisions as to what constitutes "developable" land, which any entity developing a model to determine allocations for municipalities must also make either explicitly or implicitly, applying these data base layers to geographic information is how the land capacity factor can be calculated. The firm utilized ArcGIS Pro version 3.3.2 in analyzing the data; spatial layers were projected using the coordinate system NAD 1983 State Plane New Jersey FIPS 2900 (US Feet). Further discussion on this topic is found in the following sub-section.

Following are the steps that were taken to divide land in the state into developable or undevelopable categories, with "undevelopable" meaning already developed, environmentally constrained by law or regulation, or otherwise restricted from development, such as land on the Green Acres Program's Recreation and Open Space Inventory.

5. Organize Lots into Broad Categories.

The 2023 MOD-IV data was sorted as the next step in the land capacity analysis into the following three broad categories based on their property classification code:

- Category 1. Potentially Developable Land
  - Class 1 Vacant
  - Class 3A Farm Property (Regular)
  - Class 3B Farm Property (Qualified)
- Category 2. Undevelopable Land
  - Class 2 Residential Property
  - Class 4A Commercial Property
  - Class 4B Industrial Property
  - Class 4C Apartments
  - Class 5A Railroad Class I
  - Class 5B Railroad Class II
  - Class 6A Personal Property Telephone
  - Class 6B Machinery, Apparatus, or Equipment of Petroleum Refineries
  - Class 15A Public School Property
  - Class 15B Other School Property
  - Class 15C Public Property
  - Class 15D Church and Charitable Property
  - Class 15E Cemeteries and Graveyards
  - Class 15F Other Exempt
- Category 3. "No Data"

6. Remove Environmental Constraints.

Using the 2020 LU/LC data, land was removed from the "developable land" category that was classified as either "water" or "wetlands." The new legislation defines this as, "environmentally sensitive lands where development is prohibited by any State or federal agency...[48]" With regard to transition area buffers adjacent to Category 1 streams and freshwater wetlands, the firm's model used the same criteria as accepted in the Jacobson Decision, which endorsed Dr. Kinsey's method. This includes removing the following land from the developable category: wetlands buffered by 50 feet, Category 1 streams buffered by 300 feet, and slopes in excess of 15% (see footnote 46.) Other

[48] - Section 23.1(g), P.L. 2024, c. 2 (p.47)

environmentally constrained lands were also considered, such as flood hazard areas and contaminated sites. These lands were not removed from the "developable" category because, under certain conditions, they may be suitable for development if appropriate engineering or mitigation strategies are implemented.

7. Remove Preserved Farmland.

In the next step of our analysis, land was removed from the "developable" category if it was identified as permanently preserved farmland according to GIS data created by the New Jersey State Agricultural Development Committee (SADC).

8. Remove Preserved Open Space.

Next, land was removed from the "developable" category it was identified as preserved open space according to one of the three GIS data sources:

- State, Local and Nonprofit Open Space of New Jersey, published by DEP – this information includes lands that have received funding through the Green Acres State or Local Assistance Program or are listed on a Green Acres-approved Recreation and Open Space Inventory (ROSI).
- Highlands Preserved Open Space, published by the NJ Highlands Council – The Highlands Council maintains a comprehensive list of preserved lands within the Highlands region that more accurately lists preserved lands compared to the DEP list, based on our experience; thus in the Highlands Region, this data was favored.
- Pinelands Permanent Land Protections Restrictions, published by the NJ Pinelands Commission – As with the Highlands Council, the Pinelands Commission maintains a more accurate list of preserved lands and superseded the DEP data in identifying and classifying preserved open space.

9. Remove Properties with a Construction Permit.

As previously described in subsection A, the new law requires that "construction permit data" be evaluated in considering a municipality's land capacity factor. Within the DCA's construction permit database, properties with a construction code permit for "new" construction, as opposed to "additions", "alterations", "certificates of approval" and "continuing certificates of occupancy", most clearly indicates that a site has been committed for future development, and thus the land is no longer developable in the context of the law. Within this database, permits for new construction between January 1, 2020 and November 7, 2024 were sorted (the latter date when our firm accessed the DCA database). This search yielded more than 60,000 permits issued statewide, the vast majority of which included parcels that had already been categorized as "not

developable" using the MOD-IV parcel data. These sites were removed from the "developable" category.

10. Estimate/Assume "No Data" Parcels as Residential or Commercial.

The number of "no data" parcels in the MOD-IV database is in excess of 450,000 lots totaling about 500,000 acres, or approximately 10% of the entire acreage of New Jersey. This most typically occurs when lots are "added assessed" lots to the main lot and over time are no longer separately tracked as taxable properties in themselves, but subsumed in the main tax lot while still appearing as separate properties on tax assessment maps (which are a large portion of the state parcel map data). The number of "no data" parcels was reduced by assuming these properties were most likely to be either residential or commercial based on their area and proximity to other identified residential or commercial land. Our assumptions were as follows:

- SFD and Two-Family Residential. "No data" parcels were assumed to be residential if they were smaller than 0.3 acres and within 10 feet of another Class 2 Residential parcel.

- Commercial. No data parcels were assumed to be commercial if they were smaller than 0.5 acres and within 10 feet of another Class 4A Commercial parcel.

11. Eliminate Very Small Areas of Land.

Remaining "no data" parcels that were smaller than 0.05 acre (2,718 square feet) were removed from the developable land category. This is similar to the approach taken by DCA where parcels of 2,500 square feet and smaller were not counted as developable land. In the context of creating affordable housing, infill development of this size is less likely to occur than parcels greater than this land area.

12. Manually Identify Mislabeled Vacant and "No Data" Parcels.

The GIS analyses summarized in Subsections 3.D(1)through -3.D(11)were performed uniformly for all of New Jersey and can be replicated by others seeking to verify the results. This analysis was then supplemented by visually identifying through aerial imagery and analysis of property records the remaining "no data" parcels and Class 1 Vacant parcels.

The MOD-IV database contains hundreds of thousands of vacant and "no data" parcels; a decision was made in the face of limited resources to limit individual review of parcels to those greater than ten acres in size and located in a Planning Area with a weighting factor greater than zero (see, Table 8), not including lands within a Qualified Urban Aid Municipality. This approach to relabeling was done uniformly throughout the State so that each municipality's share of developable land could be equally evaluated. Sources

for the verification of the use of land included aerial imagery with a source date between February 2024 and June 2024, obtained from NearMap.com, and property tax records from Njtaxmaps.com. Approximately 14,600 total vacant and "no data" parcels were examined for the input in the model.

13. Weight Developable Land by Planning Area.

The new law stipulates that the amount of developable land in a municipality is to be weighted by its Planning Area as delineated by the Policy Map of the State Development and Redevelopment Plan, issued by the State Planning Commission, to determine the acreage counted towards its land capacity factor. The weights by Planning Area are summarized in Table 8.

Table 8. Weighting of Developable Land by Planning Area

Planning Area Type	Weight
Planning Area 1 (Metropolitan)	1.0
Planning Area 2 (Suburban)	1.0
Planning Area 3 (Fringe)	0.5
Planning Area 4 (Rural)	0.0
Planning Area 5 (Environmentally Sensitive)	0.0
Centers in Planning Areas 1 and 2	1.0
Centers in Planning Areas 3, 4 and 5	0.5
Pinelands Regional Growth Area	0.5
Pinelands Town	0.5
All other Pinelands	0.0
Meadowlands	1.0
Meadowlands Center	1.0
Highlands Preservation Area	0.0
Highlands Planning Area Existing Community Zone and Highlands Designated Center in a Highlands Conforming Municipality	1.0
Highlands Planning Area State-Designated Sewer Service Area Municipality that is not a Highlands Conforming Municipality	1.0
All other Highlands Planning Areas	0.0

14. Calculate Municipal Share of Vacant/Developable Land.

The final step in determining the land capacity factor is to divide a municipality's acreage

of vacant and developable land by the regional acreage of vacant and developable land. Because the firm's model includes parcels classified as "no data," two versions were averaged to arrive at this calculation. In the first version, remaining parcels that had "no data" in the MOD-IV database were counted as developable land; in the second version, these parcels were excluded as developable land. This approach assumes that the remaining "no data" parcels in a municipality are composed equally of developable and nondevelopable land. The analysis of the results found that including or not including the "no data" parcels as developable land generally had a negligible effect on a municipality's land capacity factor – on average, the difference between the two versions was less than one percentage point.

3.E. Calculate Averaged Allocation Factor and Municipal Prospective Need

A municipality's three allocation factors, described in 3.B through 3.D of this monograph, were averaged together and then multiplied by the Regional Prospective Need Obligation to determine the "uncapped" Municipal Prospective Need obligation in accordance with the legislation.

The final step is to cap a municipality's allocated Prospective Need at 1,000 housing units or 20% of the total households in the municipality (according to the most recent Decennial Census), whichever limitation results in a lower Prospective Need.[49]

4. DCA vs. CCH Deficient Housing Units

This section provides for a longer explanation of the methods used by the firm in calculating deficient units and how they differ from the means by which the DCA determined them. This is one of the most complex aspects of determining municipal allocations ~~and~~ since it affects not only Present Need but also Prospective Need. As this is the main source of difference between the firm's approach and DCA, further discussion is warranted.

As previously noted, a deficient housing unit[50] is defined in the new legislation as exhibiting any one of the following: (1), is over 50 years old and overcrowded[51]; (2) lacks complete plumbing; or (3) lacks complete kitchen facilities. The new law also explains that "a municipality's Present Need obligation shall be determined by estimating the existing deficient housing units currently occupied by low- and moderate-income households within the municipality, following a methodology comparable to the methodology used to determine third round present need."[52] The determination of Present Need is a key factor for many municipalities that make them eligible to be QUAMs and thereby affects the

[49] - Section 3.c(2)(a), P.L. 2024, c. 2, p.14.
[50] - Section 2 of P.L. 2024, c.2.
[51] - Overcrowded means housing that contains more than one person per room.
[52] - Section 7 of P.L. 2024 c.2

allocation of Prospective Need within a housing region, as QUAMs do not receive a share of the regional obligation.

With regard to determining Present Need, the model developed by the firm utilizes ACS data rather than CHAS data The rationale is that this decision follows the same approach that was utilized during the experts' trial in the Jacobson Decision, and consequently is more "comparable to the methodology used to determine third round present need," as required by the P.L. 2024, c.2. The DCA in its approach utilized the 2017-2021 CHAS dataset.

As summarized in Table 9 below, by using this approach, there is a state-wide present need of 70,457 units, approximately 5,000 more than DCA's estimate.[53] Although DCA estimated higher Present Need in some housing regions, the largest discrepancies are in Regions 3 and 4, where DCA's numbers were approximately 1,600 to 3,300 units lower. As described later in this report, from the firm's perspective, DCA took certain steps that led to their Present Need number being underestimated at the State level.

Table 9. LMI Deficient Households by Region, Clarke Caton Hintz vs. DCA

Region	Clarke Caton Hintz	DCA	Difference	Percent Difference
1	24,348	23,741	-607	-2%
2	18,117	18,547	430	2%
3	10,399	7,073	-3,326	-32%
4	8,347	6,721	-1,626	-19%
5	5,977	5,927	-50	-1%
6	3,268	3,401	133	4%
Total	70,457	65,410	-5,047	-7%

The remaining sections in this report describe the key differences between the two methods:

- Ten Year-Projection versus Single Year-Estimate
- County-Level Ratios versus PUMA-Level Ratios
- Regional Income Limits versus County Income Limits
- Distinguishing Different Types of LMI Deficient Households
- Differences in Qualified Urban Aid Municipalities

1. Multi-Year Projection versus Single Year-Estimate

In order to determine the existing deficient housing units currently occupied by LMI

[53] - Affordable Housing Obligations for 2025-2035 (Fourth Round) Methodology and Background, undated (published October 18, 2024), prepared by DCA, p. 9 (hereafter referred to as "DCA Report").

households, the firm's approach directly followed the Jacobson Decision trial where existing deficient units were determined at two points in time – 2010 and 2020 – and then projected to 2025, the start of the Fourth Round Prospective Need period. As prescribed in the Jacobson Decision trial, each year of this projection used two different cut-off years to determine an "old" housing unit built at least 50 years prior – 1960 and 1970.

By contrast, DCA estimated[54] Present Need using data from a single time period: the 2017-2021 Five-Year ACS and 2017-2021 CHAS datasets. This data is six years prior to the beginning of the Fourth Round in 2025 (based on 2019, the mid-point of this dataset) and therefore yields Present Need estimates that are not existing or current relative to when the Fourth Round begins. In identifying "old" units from this data, DCA selected 1980 as the cut-off year, which is 50 years prior to the mid-point of the Fourth Round (2030)[55]. However, 1980 is only 39 years prior to 2019, leading to a mismatch between the actual age of the housing stock and the intended 50-year threshold for identifying "old" units. This choice of cut-off year also conflicts with the Jacobson Decision in which the court concluded, "that it makes more sense to determine if a housing unit is 'old' at the time it is being counted, rather than if it will be 'old' at a particular time in the future."[56]

Based on analysis of the 2017-2021 ACS PUMS data, using 1980 as a cut-off year results in 67,636 LMI Deficient Households, approximately 7,700 units more than if 1969 was used (50 years prior to 2019). Taken on its own, using a single-year estimate with a 1980 cut-off year yields a similar number of LMI deficient households compared to our more rigorous multi-year projection using two cut-off years (67,636 versus 69,435, difference of 1,800). Although DCA used the 1980 cut-off year, for other reasons discussed below, their resulting Present Need Calculation was 65,410, approximately 2,200 units lower than 67,636.

Table 10. LMI Deficient Households, 1969 vs. 1980 Cut-Off Year

2017-2021 ACS PUMS*		DCA	Clarke Caton Hintz
1969 Cut-Off Year	1980 Cut-Off Year		
59,968	67,636	65,410	70,457

* - Derived from 2017-2021 ACS PUMS Data. HUD's HAMFI County Income Limits used to determine if occupied by LMI family.

[54] - DCA Report, p. 5
[55] - DCA Report, p. 6
[56] - Jacobson Decision, p. 40

2. County-Level Ratios versus PUMA-Level Ratios

In order to calculate Present Need at the municipal level, it is necessary to use Public Use Microdata Sample (PUMS) data when direct data is not available at the municipal level. The U.S. Census Bureau collects this data for larger regions called Public Use Microdata Areas (PUMAs), which align with county or census tract boundaries. In New Jersey, PUMS boundaries generally correspond to county boundaries, allowing for the use of county-level ratios to estimate values at the municipal level. This approach was endorsed in the Jacobson Decision where "each expert multiplied the count of unique deficient housing units by the appropriate county's share of regional LMI households to estimate Present Need for each municipality."[57] The experts also used PUMS data to identify the overlap among the different types of deficient housing units.

As was done in the trial leading to the Jacobson Decision, the firm's approach used County-level ratios to estimate municipal values. By contrast, DCA used PUMA-level ratios[58] to estimate municipal values, aiming for more localized and precise estimates. While this approach is an acceptable means of arriving at a number, its main drawback is that it deviates from the one used in the Jacobson Decision, and hence the direction in the law. The methodology used to calculate Present Need in the Third Round favored using PUMS data to create ratios at larger geographies. For additional context, when the Third Round methodology was first developed in 2004, PUMS data was used to create ratios at the Regional level; later in the trial that resulted in the Jacobson Decision, it was changed to the County level.[59]

3. Regional Income Limits versus County Income Limits

The HUD CHAS data defines low- and moderate-income households as those which are less than 80% of the HUD Median Family Income (HMFI) limits, which in New Jersey correspond to the county level. These income limits differ slightly from those historically used to regulate affordable housing in New Jersey, which are determined at the regional level and published annually by the Affordable Housing Professionals of New Jersey (and

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[57] - Jacobson Decision, p. 38

[58] - According to their report, "92% of municipalities have over 95% of their population within one PUMA. In cases where municipalities were split across multiple PUMAs, they were assigned the PUMA which accounted for a majority of their population" DCA Report, p. 7

[59] - Refer to N.J.A.C. 5:97, Appendix A, Council on Affordable Housing (COAH) Procedures Explanation, prepared by Center for Urban Policy Research (CUPR), Rutgers University, dated July 13, 2004. "Rehabilitation Share represents individual municipal housing responsibility reflective of its own housing inadequacy/deficiency. About 68 percent (67.8%) of the total housing deficiency is used to indicate the share that would be occupied by low-and moderate-income families. This percentage is determined from the 5-Percent Public Use Microdata Sample (PUMS). The range determined by configuring PUMS regions to be equal to COAH Regions is 64 to 74 percent (see Table 2). The 5-Percent PUMAs (PUMS Areas) nest neatly, for the most part, within COAH Regions. One is able to get the most accurate count of the low-and moderate-income share of housing deficiency from this data source."

were previously published by the Council on Affordable Housing).[60] Both versions of these income limits are calculated based on the median family income for a four-person household and are then adjusted to larger or smaller households using multipliers developed by HUD.[61] Table 11 reports the 80% income-limit thresholds under these two approaches for a four-person household:

Table 11. NJ Regional vs. HUD County Income Limits, Four-Person HH 80% Threshold

2021 NJ Regional Income Limits[62]		2021 HUD County Income Limits[63]	
Region	Income Limit	County	Income Limit
1	$83,253	Bergen	$82,400
		Hudson	$82,800
		Passaic	$82,400
		Sussex	$79,900
2	$86,092	Essex	$79,900
		Morris	$79,900
		Union	$79,900
		Warren	$79,900
3	$98,560	Hunterdon	$81,750
		Middlesex	$81,750
		Somerset	$81,750
4	$87,394	Mercer	$79,900
		Monmouth	$79,900
		Ocean	$79,900
5	$77,280	Burlington	$75,600
		Camden	$75,600
		Gloucester	$75,600
6	$65,666	Atlantic	$66,500

60 - The New Jersey regional income limits are derived from the HMFI limits and reconfigured for New Jersey's housing regions in accordance with COAH's methodology at N.J.A.C. 5:93-7.4(b).

61 - Jacobson Decision, p. 67-68. The multipliers for a one-person to three-person household are 0.7, 0.8, and 0.9. The multipliers for a five-person to eight-person household or greater are 1.08, 1.16, 1.24, and 1.32. In HUD's method, but not New Jersey's, income limits are rounded up to the nearest $50. For more information on HUD's methodology, see https://www.huduser.gov/portal/datasets/il/il21/IncomeLimitsMethodology-FY21.pdf, accessed October 29, 2024.

62 - 2021 Affordable Housing Regional Income Limits by Household Size, prepared by Affordable Housing Professionals of New Jersey, dated April 27, 2021.

63 - https://www.huduser.gov/portal/datasets/il.html#data_2021, accessed October 14, 2024

2021 NJ Regional Income Limits[62]		2021 HUD County Income Limits[63]	
Region	Income Limit	County	Income Limit
		Cape May	$67,900
		Cumberland	$61,600
		Salem	$75,600

According to DCA's report, using HUD's County income limits to identify LMI households would not produce significantly different results than using New Jersey's Regional income limits. To substantiate this claim, DCA analyzed 2020 ACS PUMS data using the two sets of income limits and reportedly found a 98% correlation.[64] As the details of this analysis were not included in DCA's report, the firm performed a similar analysis of the 2017-2021 Five-Year ACS PUMS data and likewise found that both versions produce similar results, with the regional income limits yielding a slightly higher number.

Table 12. 2019 LMI Deficient Households, Regional vs. County Income Limits

Criteria Satisfied	Old and Overcrowded	Lacks Kitchens	Lacks Plumbing	AHPNJ Regional Income Limits		HUD County Income Limits	
				Count	Percent	Count	Percent
1	X			49,437	70.2%	47,318	70.0%
1		X		13,642	19.4%	12,998	19.2%
2		X	X	4,244	6.0%	4,185	6.2%
1			X	2,192	3.1%	2,186	3.2%
2	X	X		646	0.9%	659	1.0%
3	X	X	X	155	0.2%	155	0.2%
2	X		X	135	0.2%	135	0.2%
			Total	70,451	100.0%	67,636	100.0%

Source: Derived from 2017-2021 ACS PUMS Data. 1980 was used as the cut-off for an "old" housing unit.

4. Distinguishing Different Types of LMI Deficient Households

Our firm and DCA used different approaches to distinguish the three types of deficient housing. Generalized diagrams illustrating our approach versus DCA's are shown in Figures 3 and 4 on the following page. As was done in the Jacobson Decision, the firm used a combination of municipal-level ACS data and PUMS data, whereas DCA used these sources in addition to the CHAS data. In our approach, a municipality's total number of

64 - DCA Report, p. 6

deficient housing units was first determined and then multiplied by a single, county-level ratio to estimate the proportion occupied by low- and moderate-income families.

By contrast, DCA used[65] CHAS Table 8 which provides municipal-level counts of LMI households that lack "complete plumbing or kitchen facilities." The CHAS data dictionary[66] does not indicate whether this dataset includes overlapping counts of households that lack kitchens and lack plumbing and whether either indicator overlaps with the "overcrowded" housing problem, which HUD also evaluates.

In order to verify how CHAS tabulates this information, we analyzed the 2017-2021 ACS PUMS data for the three types of deficient households. As shown in Table 13, it appears that CHAS data may account for households that lack both complete plumbing and kitchen facilities as its estimate was close to the PUMS data (19,369 units vs. 19,418 units). However, it also appears that the CHAS data does not include the units that are old and overcrowded – as indicated in Table 13 – there are 949 units that appear to have not been counted by DCA.

Table 13. LMI Deficient Households, PUMS vs. DCA Estimates

Criteria Satisfied	Old and Overcrowded	Lacks Kitchens	Lacks Plumbing	2017-2021 ACS PUMS*	DCA Estimates[67]	Difference
1	X			47,318	45,990	-1,328
1		X		19,369	19,418	49
2		X	X			
1			X			
2	X	X		949	0	-949
3	X	X	X			
2	X		X			
Total				67,636	65,408	-2,228

65 - DCA Report, p. 8
66 - https://www.huduser.gov/portal/datasets/cp/CHAS/data_doc_chas.html, accessed October 14, 2024
67 - Tab D of Fair Share Housing Obligations for 2025-2035 (Fourth Round) Excel Workbook, DCA, dated April 27, 2021.

* - Derived from 2017-2021 ACS PUMS Data. HUD's HAMFI County Income Limits used to determine if occupied by LMI family. 1980 was used as the cut-off for an "old" housing unit.

Figure 3. Diagram of LMI Deficient Households Calculation by Clarke Caton Hintz

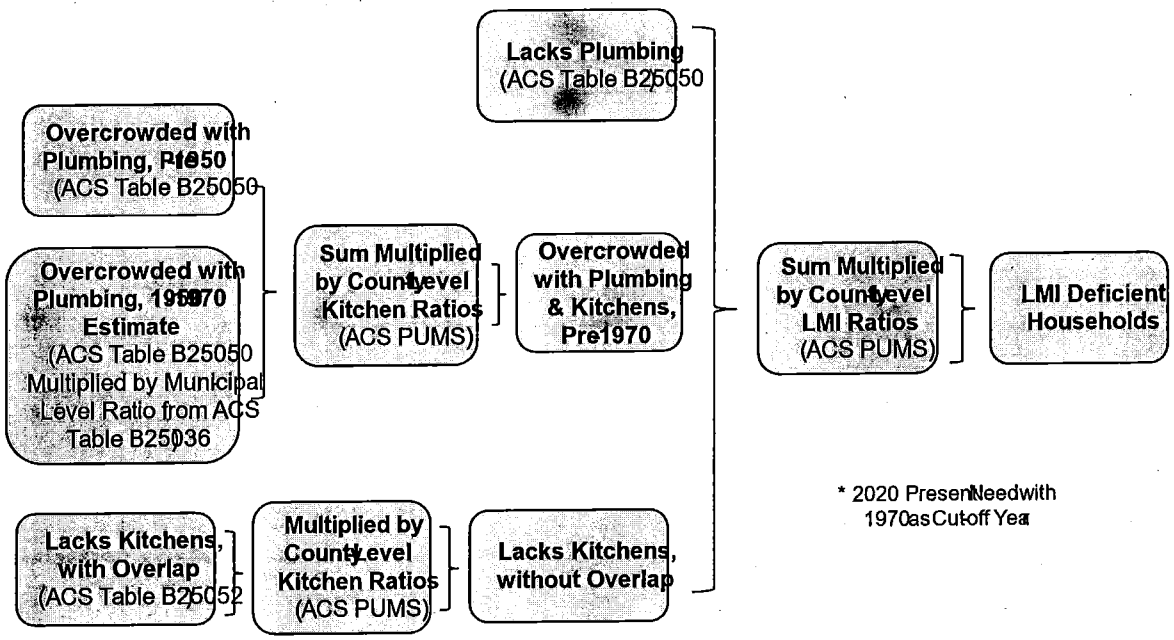
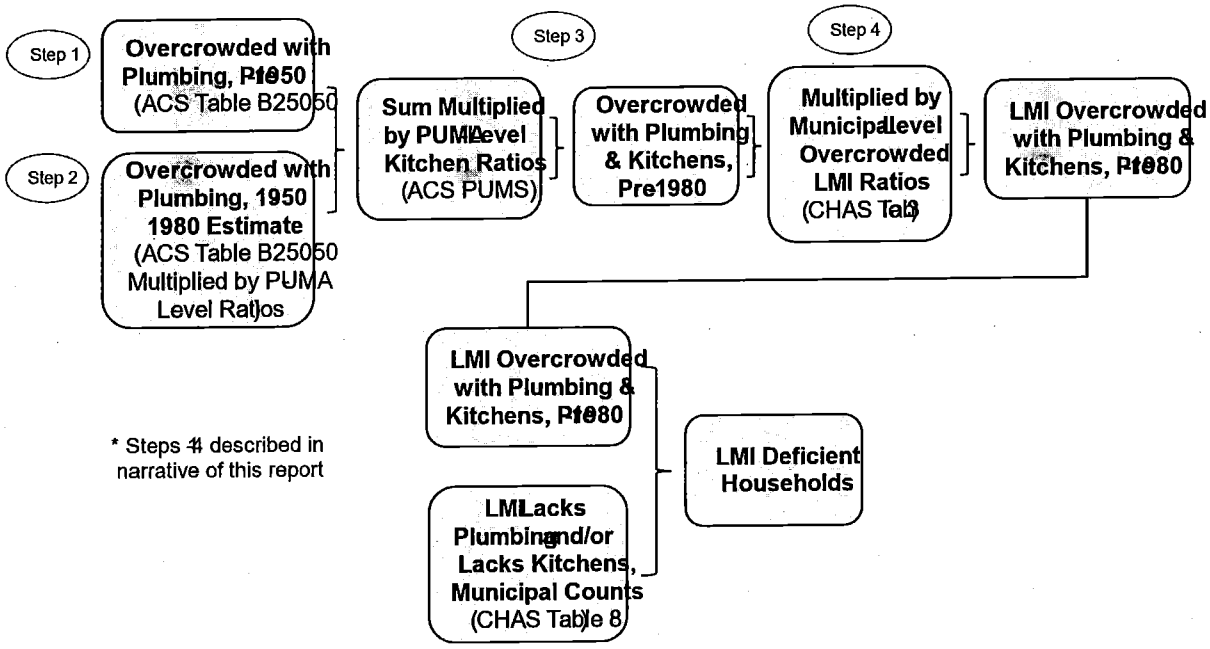


Figure 4. Diagram of LMI Deficient Households Calculation by DCA



CHAS data reports on homes that are overcrowded but not their age. Therefore, DCA derived this information from ACS Table B25050, which reports municipal-level counts of the number of homes by year built (pre- and post-1950), the number of occupants per room, and whether the home has plumbing facilities. The following steps were taken:

- Step 1. DCA counted the number of pre-1950 overcrowded units with complete plumbing facilities in ACS Table B25050.[68] The firm took the same approach.

- Step 2. DCA calculated the number of post-1949 overcrowded units with complete plumbing facilities and then used ACS PUMS data to estimate the proportion of these units built between 1950 and 1980. This figure was then added to the pre-1950 overcrowded units with complete plumbing facilities. [69] In the firm's calculations, instead of using PUMS data for this step, the municipality-specific ratios of homes built between 1950 and the cut-off year (1960 or 1970) compared to all post-1949 homes using ACS Table B25036 Year Structure Built were calculated.

- Step 3. DCA used ACS PUMS data to estimate[70] the proportion of pre-1980 overcrowded units with complete plumbing facilities that also have complete kitchen

[68] - DCA Report, p. 6
[69] - DCA Report, p. 6-7
[70] - DCA Report, p. 7

facilities, arriving at a State-wide figure of 75,034.[71] The same approach was used in both models, except that the firm used County-Level ratios rather than PUMA-level ratios, because this follows the approach taken during the Jacobson Decision, as previously discussed.

- Step 4. DCA used data from CHAS Table 3 to estimate the percentage of overcrowded housing units occupied by LMI households in each municipality.[72] These percentages were then multiplied by the estimates in Step 3 to determine the LMI pre-1980 overcrowded units with complete plumbing and kitchen facilities.

Step 4 of DCA's approach is problematic because it uses a ratio of LMI overcrowded units rather than LMI old and overcrowded units. Based on our analysis of the ACS PUMS data, LMI families occupy old and overcrowded units at a higher rate (63%) than units that are just overcrowded (60%), as shown in Table 14 on the following page. The result of using the "overcrowded ratio" results in an undercounted number of LMI Old and Overcrowded households. When multiplied by DCA's State-wide number of 75,034 (pre-1980 overcrowded units with complete plumbing and kitchen facilities), the result is 45,160 – DCA ultimately determined 45,990 (see first row of Table 14).

Table 14. LMI Overcrowded Units vs. LMI Old & Overcrowded Units

PUMS Tabulation	Total	LMI	LMI %	Sample Calculation
Old and Overcrowded (complete Kitchens and Plumbing	74,424	47,318	63.58%	x 75,034 = 47,706
Overcrowded (complete Kitchens and Plumbing)	113,839	68,515	60.19%	x 75,034 = 45,160

Sources: Derived from 2017-2021 ACS PUMS Data. HUD's HAMFI County Income Limits used to determine if occupied by LMI family. 1980 was used as the cut-off for an "old" housing unit.

5. Identifying Qualified Urban Aid Municipalities

Qualified Urban Aid Municipalities (QUAMs) are exempt from receiving a Prospective Need allocation and thus do not share in the regional obligation. One of the criteria for designating a municipality as a QUAM is if it contains a higher level of LMI deficient households than its housing region:

> "The ratio of substandard existing deficient housing units currently occupied by low- and moderate-income households within the municipality, compared to all existing

71 - Tab D of Fair Share Housing Obligations for 2025-2035 (Fourth Round) Excel Workbook, DCA, dated April 27, 2021.
72 - DCA Report, p. 7

housing in the municipality, is greater than the equivalent ratio in the region."[73]

Because our firm and DCA used different approaches for determining LMI deficient households, there are also differences in the list of QUAMs. As summarized in Table 15, the two approaches result in a different list of QUAMs in Regions 4, 5 and 6.

Table 15. Qualified Urban Aid Municipalities, Clarke Caton Hintz vs. DCA

Region	Identified by Clarke Caton Hintz Only	Identified by DCA Only	Identified by Both
1	No Differences	No Differences	▪ Bergenfield Borough ▪ Cliffside Park Borough ▪ Garfield City ▪ Hackensack City ▪ Lodi Borough ▪ Bayonne City ▪ Harrison Town ▪ Hoboken City ▪ Jersey City ▪ Kearny Town ▪ North Bergen Township ▪ Union City ▪ Weehawken Township ▪ West New York Town ▪ Clifton City ▪ Passaic City ▪ Paterson City
2	No Differences	No Differences	▪ Belleville Township, Essex County ▪ Bloomfield Township, Essex County ▪ City of Orange Township, Essex County ▪ East Orange City, Essex County ▪ Irvington Township, Essex County ▪ Montclair Township, Essex County ▪ Newark City, Essex County ▪ Nutley Township, Essex County ▪ Elizabeth City, Union County ▪ Hillside Township, Union County ▪ Plainfield City, Union County ▪ Rahway City, Union County ▪ Roselle Borough, Union County
3	No Differences	No Differences	▪ Carteret Borough, Middlesex County ▪ New Brunswick City, Middlesex County

[73] - Per the new law, a municipality must be designated to receive State Aid and satisfy one of three criteria. The other two criteria relate to a municipality's population density and percentage of vacant parcels. Section 7.c(1), P.L. 2024 c.2, p.22.

Region	Identified by Clarke Caton Hintz Only	Identified by DCA Only	Identified by Both
			▪ Perth Amboy City, Middlesex County ▪ Woodbridge Township, Middlesex County
4	▪ Neptune Township, Monmouth County	▪ Long Branch, Monmouth County	▪ Trenton City, Mercer County ▪ Asbury Park City, Monmouth County ▪ Lakewood Township, Ocean County
5	▪ Mount Holly Township, Burlington County ▪ Gloucester City, Camden County	None	▪ Camden City, Camden County ▪ Lindenwold Borough, Camden County ▪ Pennsauken Township, Camden County ▪ Glassboro Borough, Gloucester County ▪ Woodbury City, Gloucester County
6	None	▪ Vineland City, Cumberland County	▪ Atlantic City, Atlantic County ▪ Pleasantville City, Atlantic County ▪ Bridgeton City, Cumberland County

6. Data Sources

Data used in this report was obtained from a variety of sources, including the U. S. Census Bureau, and various department of the State of New Jersey, as directed by P.L. 2024, c. 2, or utilized in the Jacobson Decision. The data sources used for each step of the analysis are listed in Table 16.

Table 16. Data Sources

Analysis Step	Source	Prepared/Published by	Date(s)
1	Public Use Microdata Sample (PUMS)	American Community Survey, Five-Year	2008-2012, 2018-2022
1	Table B25036: Tenure by Year Structure Built	American Community Survey, Five-Year	2008-2012, 2018-2022
1	Table B25050: Plumbing Facilities by Occupants Per Room by Year Structure Built	American Community Survey, Five-Year	2008-2012, 2018-2022
1	Table B25052: Kitchen Facilities for Occupied Housing Units	American Community Survey, Five-Year	2008-2012, 2018-2022
1	Affordable Housing Regional Income Limits	Affordable Housing Professionals of New Jersey (AHPNJ)	2022

Analysis Step	Source	Prepared/Published by	Date(s)
1	Affordable Housing Regional Income Limits	Council on Affordable Housing (COAH)	2012
2	Table H1: Occupied Households	Decennial Census	2010, 2020
3.A	Table B25034: Year Structure Built (measure of total housing units)	American Community Survey, Five-Year	2008-2012, 2018-2022
3.A	Table B01001: Sex by Age (measure of total population)	American Community Survey, Five-Year	2018-2022
3.A	Abstract of Ratables (measure of vacant land)	DCA Local Government Services Division	2023
3.A	Municipal Boundaries of NJ	NJ Office of GIS	January 9, 2024
3.A	Land Use/Land Cover of New Jersey 2020	NJDEP Bureau of GIS	November 21, 2023
3.B	Abstract of Ratables (measure of nonresidential valuation)	DCA Local Government Services Division	1999, 2023
3.B	Property Tax Tables (equalization ratios)	DCA Local Government Services Division	1999, 2023
3.C	Table B19013: Median Household Income In The Past 12 Months	American Community Survey, Five-Year	2018-2022
3.C	Table B25036: Tenure by Year Structure Built (measure of occupied households)	American Community Survey, Five-Year	2018-2022
3.D	Parcels and MOD-IV Composite of NJ	NJ Office of GIS	May 8, 2024
3.D	Municipal Boundaries of NJ	NJ Office of GIS	January 9, 2024
3.D	County Boundaries of NJ	NJ Office of GIS	January 9, 2024
3.D	Land Use/Land Cover of New Jersey 2020	NJDEP Bureau of GIS	November 28, 2023
3.D	State, Local and Nonprofit Open Space of New Jersey	NJDEP Bureau of GIS	August 13, 2024
3.D	Preserved Farmland of New Jersey	NJ State Agriculture Development Committee	June 25, 2024
3.D	Highlands Preserved Lands	NJ Highlands Council	June 10, 2024
3.D	Pinelands Permanent Land Protection Restrictions	New Jersey Pinelands Commission	April 1, 2024
3.E	Table H1: Occupied Households	Decennial Census	2020

MEMORANDUM

Clarke Caton Hintz
Architecture
Planning
Landscape Architecture

To: Upper Deerfield Township Committee
Roy Spoltore, Township Administrator/Clerk
Rocco Tedesco, Esq., Township Solicitor

From: Brian Slaugh, PP, AICP

Re: Upper Deerfield Township Affordable Housing Obligation
Comparison of Clarke Caton Hintz and DCA Models and Effects

Date: January 29, 2025

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This memorandum provides an overview of the differences between the model developed by Clarke Caton Hintz, P.C. (CCH, the Township's affordable housing consultant) and the N.J. Department of Community Affairs (DCA) to determine the allocations of municipal affordable housing obligations. P.L. 2024 c.2, signed into law on March 20, 2024, amended the New Jersey Fair Housing Act (FHA) and established the process for addressing the "Fourth Round" of affordable housing obligations, which starts on July 1, 2025. Among these amendments, the legislation defines the methodology for determining affordable housing obligations, which consists of two components: a "Prospective Need" obligation to construct new affordable housing, and a "Present Need" obligation to rehabilitate existing affordable housing. On October 18, 2024, the New Jersey Department of Community Affairs (DCA) published[1] non-binding affordable housing obligations for the entire State, estimating a Prospective Need and Present Need for Upper Deerfield Township of 118 and 31 units, respectively.

John Hatch, FAIA
George Hibbs, AIA
Brian Slaugh, AICP
Michael Sullivan, AICP
Michael Hanrahan, AIA
Mary Beth Lonergan, AICP

To assist our municipal clients and to provide a counterpoint to the DCA numbers, CCH developed its own model to allocate affordable housing to municipalities. The firm ran a number of different models, but focused on one the adhered as closely as possible to the new law and to the Jacobson Decision – a trial that lasted months in Mercer County and created an accepted methodology for the Third Round. The numbers that came from the Jacobson Decision eventually became the accepted ones in various court decisions even if they did not receive final approval by the courts or the executive branch. CCH used this methodology because the new law specifically directed municipalities to do so. As summarized in the table below, and explained in the remainder of this memo, the

1 - Affordable Housing Obligations for 2025-2035 (Fourth Round) Methodology and Background, prepared by DCA, document undated, however published October 18, 2024. https://www.nj.gov/dca/dlps/pdf/FourthRoundCalculation_Methodology.pdf

differences between DCA's calculation and the CCH approach concern the Land Capacity Factor and whether the City of Vineland is a Qualified Urban Aid Municipality (QUAM).

Table 1. Upper Deerfield Township Affordable Housing Obligation Summary

Version	Land Capacity Factor	City of Vineland is a QUAM	Upper Deerfield Obligation	
			Prospective Need	Present Need
DCA	Land Use/Land Cover Method	Yes	118	31
Clarke Caton Hintz	MOD-IV Data evaluated Uniformly for Region 6	No	75	19

Prospective Need and DCA Calculation

As defined in the new law, municipal Prospective Need is calculated by multiplying the Regional Prospective Need by a municipality's allocation factor, which is the average of three sub-factors: the equalized nonresidential valuation factor, the income capacity factor, and the land capacity factor. According to DCA[2], these components for Housing Region 6, which encompasses the counties of Atlantic, Cape May, Cumberland, and Salem, specific to Upper Deerfield are as follows:

- Total Region 6 Prospective Need – 1,889 units/credits
- Upper Deerfield Equalized Nonresidential Factor = 1.61%
- Upper Deerfield Income Capacity Factor = 1.32%,
- Upper Deerfield Land Capacity Factor = 15.75%,
- Average of the three factors = 6.23%,
- Upper Deerfield Prospective Need = 1,889 x 6.23% = 118 units/credits

Crucial to the allocation of affordable housing are Qualified Urban Aid Municipalities (QUAMs), because these municipalities do not receive any share of the Regional Prospective Need. According to DCA's methodology, the QUAMs in Region 6 include Atlantic City, Bridgeton City, Pleasantville City, and Vineland City. However the CCH model comes to a different conclusion that Vineland is not a QUAM and consequently also has a Prospective Need allotment.

2 - Fourth Round Calculation Workbook, prepared by DCA, dated and accessed in October 2024. https://www.nj.gov/dca/dlps/pdf/FourthRoundCalculation_Workbook.xlsx.

Land Capacity Factor Distinction

Clarke Caton Hintz's model differs from DCA's approach most fundamentally in the base data used to develop the Land Capacity Factor. The firm used the municipal tax assessment data from the MOD-IV property tax information in contrast to DCA who relied on the Land Use/Land Cover (LU/LC) geographic data layer published by the NJ Department of Environmental Protection (NJDEP). These datasets are described as follows:

- **MOD-IV Property Tax Data.** The New Jersey Property Tax System, known as MOD-IV, establishes the uniform preparation, maintenance, presentation and storage of the property tax information required by the New Jersey Constitution and the rules promulgated by the Division of Taxation found at N.J.A.C. 18:12-2 and -3. Municipal tax assessors are responsible for inputting the property tax data through the MOD-IV online system in accordance with the procedures of the MOD-IV User Manual.[3]

- **Land Use/Land Cover Data.** The 2020 LU/LC data is the seventh update in a series of land use mapping efforts that began in 1986.[4] The data is generated using remote sensing technology, which involves the use of satellites that interpret aerial imagery[5] and classify land cover into six broad categories[6]: Agriculture, Barren Land, Forest, Urban, Water, and Wetlands.

Both of these means of determining whether land is developable for housing or not are endorsed by the amended Fair Housing Act, but the two systems are not compatible. MOD-IV identifies entire parcels as developable or not developable based on whether it has been assessed as Class I Vacant or Class 3A/3B Farmland. LU/LC data, by contrast, identifies developable land by the type of land cover, which may and often does, transcend parcel boundaries. The image on the following page, from Branchburg Township,

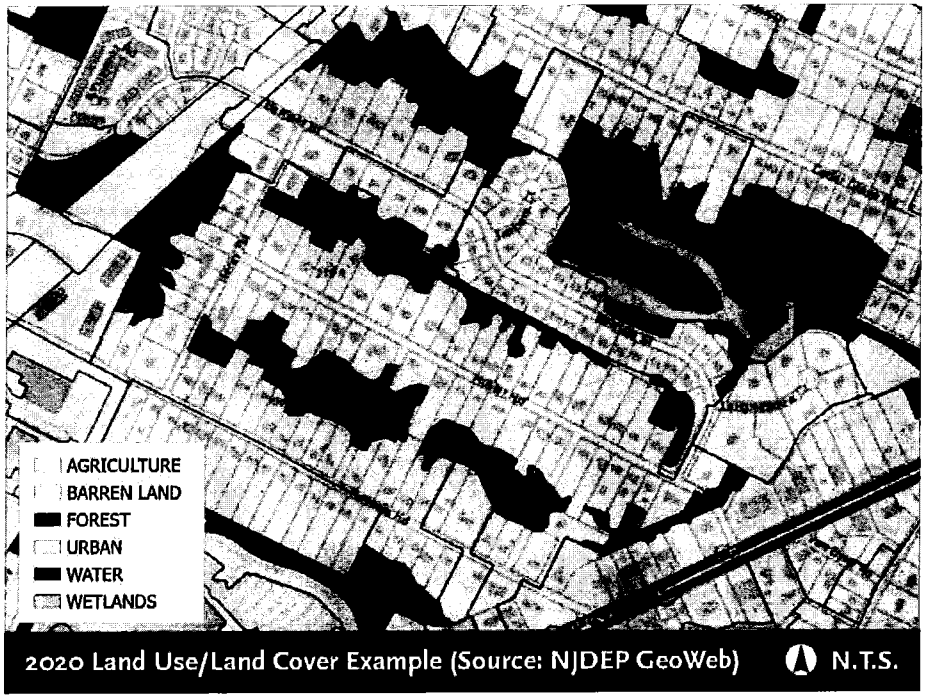
3 – *MOD-IV User Manual*, prepared by the NJ Department of Treasury Division of Taxation, October 2019, accessed September 2024 via https://www.nj.gov/treasury/taxation/pdf/lpt/modIVmanual.pdf

4 - Land Use/Land Cover of New Jersey 2020, NJDEP Bureau of GIS, accessed September 2024 via https://gisdata-njdep.opendata.arcgis.com/datasets/2deaaa3cadd94166bdbff92a44ade284_5/about

5 – For additional information on remote sensing mapping method, refer to *New Jersey Land Cover Change Analysis Project*, prepared by Richard G. Lathrop, Rutgers University Center for Remote Sensing & Spatial Analysis, October 2000, accessed September 2024 via https://crssa.rutgers.edu/projects/lc/download/reportsdata72_84_95/njlcca.pdf

6 – Land cover is further classified into a series of sub-categories. Full list included in GIS metadata here: https://www.nj.gov/dep/gis/digidownload/metadata/lulc20/anderson2020.htm, accessed September 2024.

illustrates an example of a neighborhood with numerous residential lots containing wooded areas in the rear of residential lots. Utilizing the LU/LC GIS system, means that these wooded areas count as developable land towards a municipality's land capacity factor. As can be seen, however, the wooded areas are mainly the rear yards of residential lots and would not be available for development. The MOD-IV property tax data, on the other hand, provides a better description of the entire use of the land within the lots lines, and provides greater potential for accuracy. Moreover, at the time of completing the CCH analysis, the MOD-IV data had been updated through May 2024, whereas the LU/LC information is based on remote sensing data collected in 2020.



2020 Land Use/Land Cover Example (Source: NJDEP GeoWeb) N.T.S.

The main limitation of the MOD-IV dataset is that numerous parcels are missing data or may have been incorrectly labelled as Class 1 Vacant by municipal tax assessors.[7] The number of "no data" parcels in the MOD-IV database is over 450,000 totaling approximately 500,000 acres, approximately 10% of the entire acreage in New Jersey. In

7 - Common examples of these lots include stormwater detention basins and common open space that is a part of homeowner associations. Oftentimes, municipal tax assessors may not classify these lots or may label them as "vacant" because they are not taxed, despite not actually being vacant and developable.

our analysis, we partially addressed this issue by manually identifying "no data" parcels and Class 1 Vacant parcels that may have been mislabeled by tax assessors through the use of aerial photography, ground level imagery and property tax records.

Because the MOD-IV database contains hundreds of thousands of vacant and "no data" parcels, the firm did not have the resources to check all such parcels. Instead, we verified vacant and "no data" parcels greater than 10 acres in size and located in a Planning Area with a weighting factor greater than zero (listed in Table 2), not including lands within a Qualified Urban Aid Municipality.

The firm's approach to verification of parcels was done uniformly in Upper Deerfield Township, Region 6, and the remainder of the State so that each municipality's share of developable land could be equally evaluated. The sources we used to verify the use of a parcel included aerial imagery obtained from NearMap.Com (captured between February 2024 and June of 2024) and property tax records from NJTaxMaps.Com. Under this approach, we verified approximately 14,600 total vacant and "no data" parcels throughout the State and DCA about 22,000 parcels[8]. Neither set of data is perfect, and both DCA and CCH undertook this substantial verification of lots in an effort to reduce error across the board.

Land that is not considered developable also includes certain environmentally sensitive land specifically identified in the statute or the Jacobson Decision. These include water, freshwater wetlands plus 50-foot buffers, Category 1 streams plus 300-foot buffers, steep slopes greater than or equal to 15%, open space on Green Acres Recreation and Open Space Inventory, permanently preserved farmland, and construction permit data reported to DCA. After excluding these features, the net remaining vacant and developable land was weighted by Planning Area, as defined in the new law and summarized in Table 2:

Table 2. Weighting of Developable Land by Planning Area

Planning Area Type	Weight
Planning Area 1 (Metropolitan)	1.0
Planning Area 2 (Suburban)	1.0
Planning Area 3 (Fringe)	0.5
Planning Area 4 (Rural)	0.0
Planning Area 5 (Environmentally Sensitive)	0.0

8 - Personal communication with Keith Henderson, Director of Local Government Services, DCA, November 6, 2024.

Planning Area Type	Weight
Centers in Planning Areas 1 and 2	1.0
Centers in Planning Areas 3, 4 and 5	0.5
Pinelands Regional Growth Area	0.5
Pinelands Town	0.5
All other Pinelands	0.0
Meadowlands	1.0
Meadowlands Center	1.0
Highlands Preservation Area	0.0
Highlands Planning Area Existing Community Zone and Highlands Designated Center in a Highlands Conforming Municipality	1.0
Highlands Planning Area State-Designated Sewer Service Area Municipality that is not a Highlands Conforming Municipality	1.0
All other Highlands Planning Areas	0.0

Table 3 describes how Upper Deerfield Township's percent share of developable land was determined using DCA's approach and the CCH Model. DCA identified 13,431 acres of developable land in Region 6, of which Upper Deerfield contains 15.75%. Because our analysis deals with the issue of "no data" parcels, we considered two versions of this percentage calculation and then took the average: in the first version, remaining parcels that had no data in the MOD-IV database were counted as developable land; in the second version, these parcels were not counted as developable land.

Table 3. Upper Deerfield Township Land Capacity Share Calculation – DCA vs. CCH

	DCA	Clarke Caton Hintz Model		
		"No Data" Parcels Not Counted as Developable	"No Data" Parcels Counted as Developable	Average
Region 6	13,431 acres	13,646 ac.	20,680 ac.	–
Upper Deerfield Township	2,116 acres	1,169 ac.	2,842 ac.	–
Upper Deerfield Share	15.75%	8.56%	13.74%	11.15%

In Region 6, these two versions yielded a regional estimate of 13,646 acres and 20,680 acres – Upper Deerfield's averaged share is 11.15%. Essentially, this approach assumes that the remaining "no data" parcels in a municipality are composed equally of developable and nondevelopable land. At the Statewide level, we found that including or not including the "no data" parcels as developable land generally had a negligible effect on a municipality's land capacity factor – on average, the difference between the two versions was less than one percentage point. However, in Upper Deerfield, there is a considerably larger difference of 5.18 percentage points because of the relatively undeveloped nature of the Township and of Region 6 generally.

Effect of Deficient Housing Unit Calculations on Prospective Need

As noted, Qualified Urban Aid Municipalities (QUAMs) are exempt from receiving a Prospective Need obligation and, therefore, their identification can have a large impact on the regional allocation of affordable housing. DCA identified the City of Vineland as a QUAM, whereas our model did not.

In accordance with the amended FHA, a municipality is a QUAM if, as of July 1 of the year prior to the beginning of a new round, it is listed to receive state urban aid and meets at least one of the following additional criterion[9]:

a) The ratio of substandard existing deficient housing units currently occupied by low- and moderate-income (LMI) households within the municipality, compared to all existing housing in the municipality, is greater than the equivalent ratio in the region;

b) The municipality has a population density greater than 10,000 persons per square mile of land area; or

c) The municipality has a population density of more than 6,000, but less than 10,000 persons per square mile of land area, and less than 5% vacant parcels not used as farmland, as measured by the average of:

   i. The number of vacant land parcels in the municipality as a percentage of the total number of parcels in the municipality; and

   ii. The valuation of vacant land in the municipality as a percentage of total valuations in the municipality.

9 - Section 7.c(1), P.L. 2024 c.2

The DCA designated Vineland as a QUAM based on a finding that its ratio of low and moderate income deficient units was higher than the regional average. A deficient housing unit[10] is defined in the new legislation as exhibiting any one of the following characteristics: (1) is over 50 years old and overcrowded[11]; (2) lacks complete plumbing; or (3) lacks complete kitchen facilities. Our firm's calculations suggest that DCA undercounted the number of deficient dwellings in the state occupied by the target population – perhaps as much as 4,500 housing units. Furthermore, the City has had a robust effort in identifying and fixing substandard housing for several decades. CCH's analysis found that the City's regional share of deficient housing units did not exceed this regional average, and consequently would not make it eligible to be qualified as an urban aid municipality exempt from addressing a Prospective Need. Under these circumstances, Vineland's Prospective Need number is 211, which given that the entire region's is 1,889 units, would clearly have a large effect on all of the municipalities allocations for new construction.

Present Need

Upper Deerfield's Present Need Number, based on CCH's model is 19 units. This may be contrasted with the Third Round Present Need Number of 24 units for a period of time about 50% longer. Historically, the Township has operated a rehabilitation program utilizing Small Cities grant money to rehabilitate substandard housing units and could continue with this type of program in the future.

Summary

In summary, it is our conclusion that the best scenario for the Township is to declare in its binding resolution a Present Need allocation of 19 units and a Prospective Need allocation of 75 units for the Fourth Round. A draft resolution for the Township Committee's consideration, as well as the firm's full explanation of its methodology, is attached to this memorandum.

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[10] - Section 2 of P.L. 2024 c.2.
[11] - Overcrowded means housing that contains more than one person per room.