INTRODUCTION TO IPLS: INTEGRATED PARCEL LIFECYCLE SYSTEM

FAIRFAX COUNTY DEPARTMENT OF MANAGEMENT AND BUDGET ECONOMIC, DEMOGRAPHIC AND STATISTICAL RESEARCH



WHAT IS IPLS?

Integrated Parcel Lifecycle System

- Collects and links administrative data from multiple databases across the county.
- Utilizes administrative data, the most current information for Fairfax County.
- Produces a new data which is the most accurate for Fairfax County at a parcel level.



Housing Units



Households

Population



Housing Value



Development Pipeline



Gross Floor Area

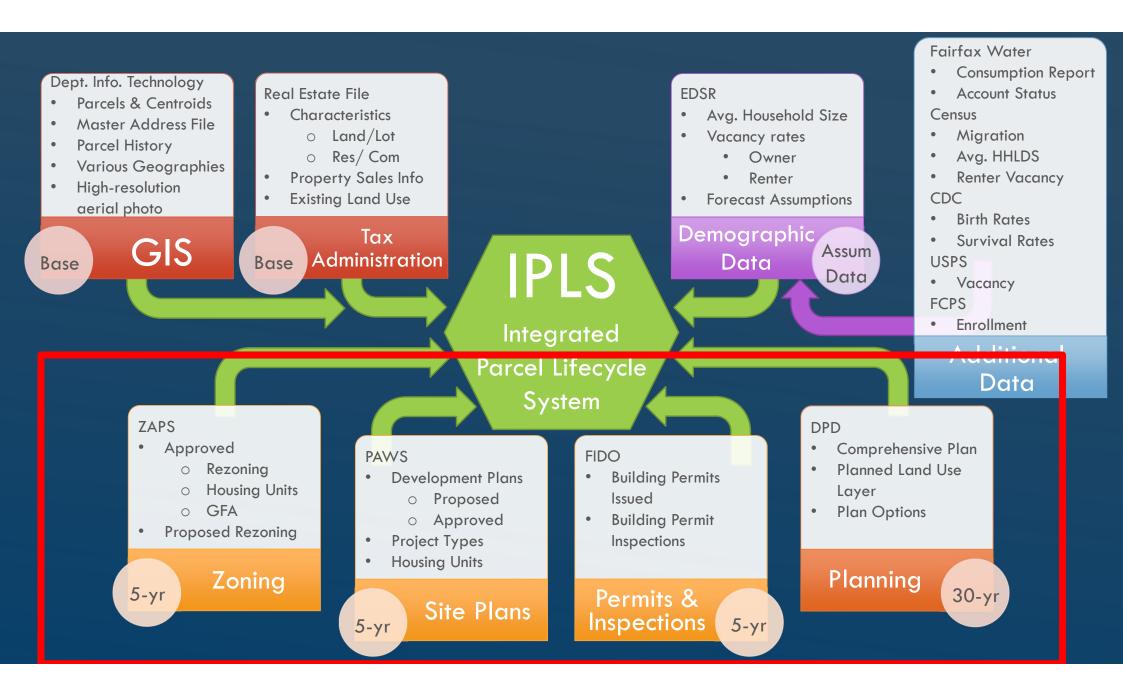


Existing Land Use

IPLS UPDATE CYCLE

Updated Annually

- Snapshot of January 1 for the reporting year.
 - Valid To Date: 1/1/2022 is the date of the snapshot.
 - January 1, yyyy data is available by December yyyy.



IPLS CURRENT ESTIMATES INPUT

Housing Units

- Real Estate Tax Assessment
 - Conditions for Inclusion: type of unit, age of the structure, percent complete, condition of the structure, assessed value, sales value, existing land use, zoning, and access to utilities.

Households

- Fairfax Water
 - Account Status and Consumption Rates
 - Owner Vacancy Estimates
- Fairfax County Surveys of Rental Housing Complexes
 - Renter Vacancy Estimates
- U.S. Census Bureau
 - Vacancy Estimates

Population

- U.S. Census Bureau
 - Average Household Size Estimates
- Group Quarters Population
 - Fort Belvoir
 - George Mason University
 - Detention Centers
 - Nursing Homes
 - Etc.

DATA USAGE

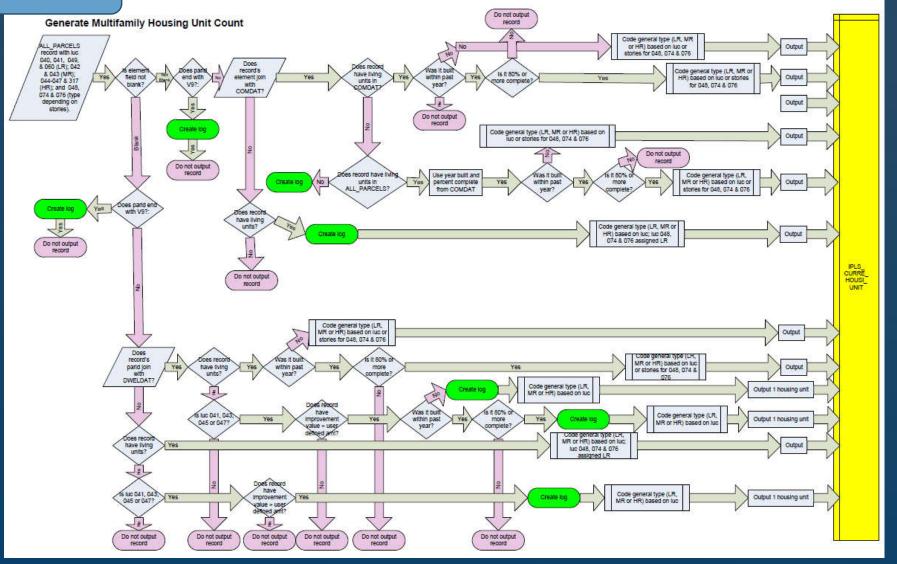
- Housing Unit Data is accurate to the parcel/point.
- Household and Population Estimates require caution when using small geographic areas.
 - As geography size decreases, accuracy decreases.

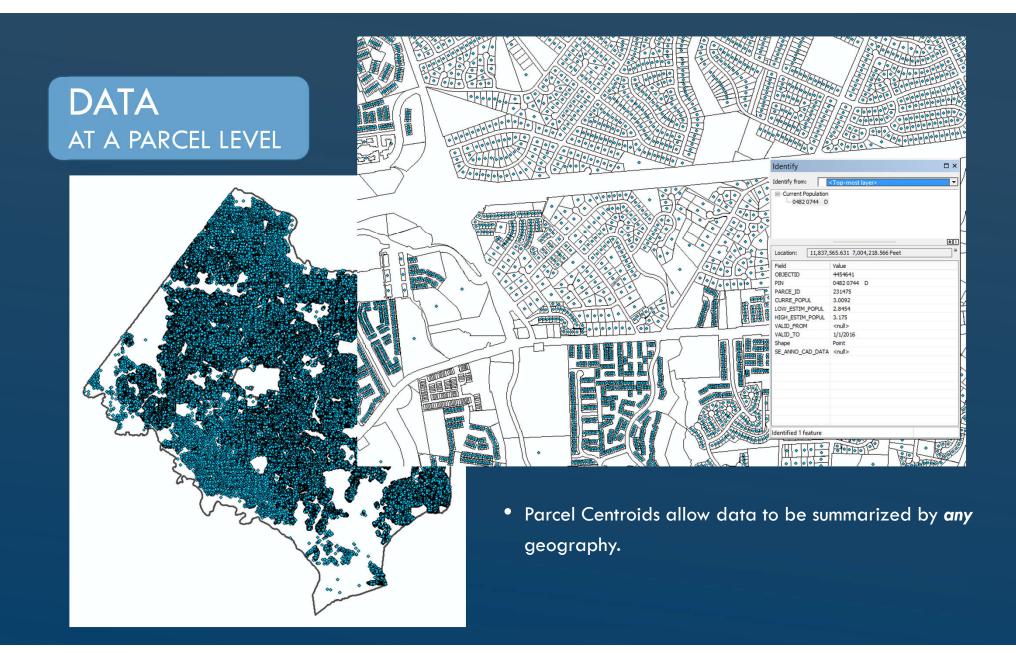
10 Housing Units and 9 Households (Occupied HU)



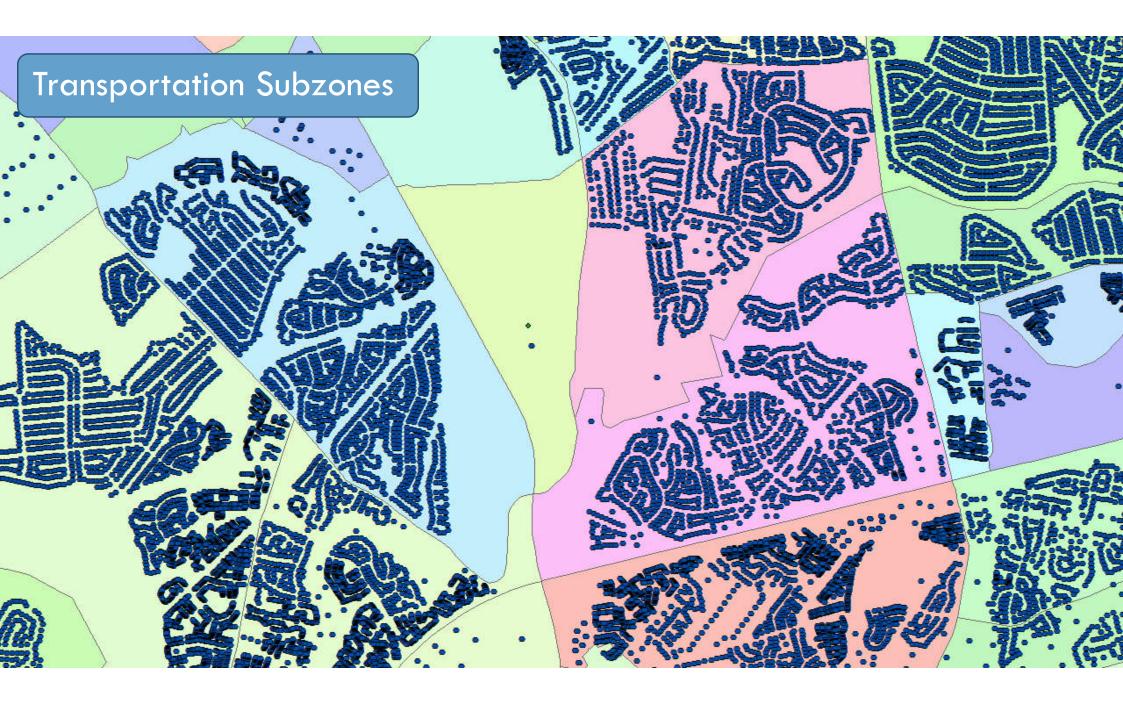
10 Housing Units and 9 Households Vacancy rate is spread across all housing units in that geography

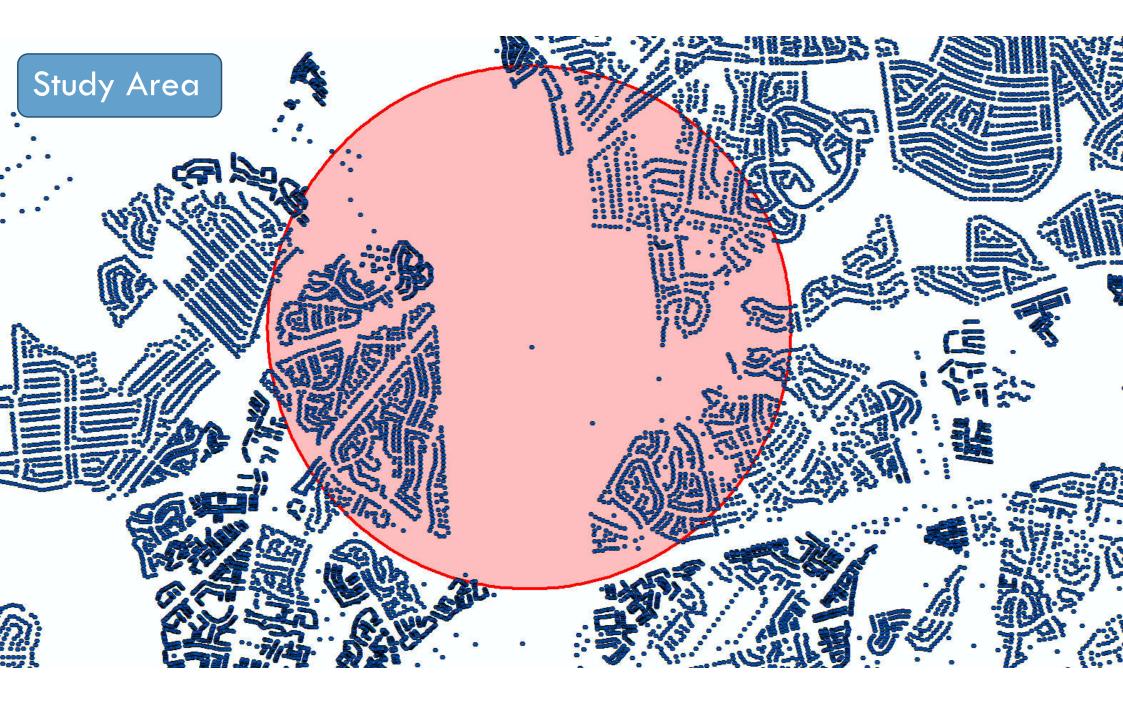
Decision Tree











IPLS CURRENT ESTIMATES OUTPUT

HOUSING UNITS

- PIN
- Parcel ID
- Number of Housing Units
- Housing Unit Type
 - SF, TH, DX, MP, LR, MR, HR, and MH
- Land-Use Code
- Year Built
- Valid To (Report Year)

HOUSEHOLDS

• PIN

- Parcel ID
- Household Estimate
 - Current
 - Low
 - High
- Valid To

POPULATION

- PIN
- Parcel ID
- Population Estimate
 - Current
 - Low
 - High
- Valid To

IPLS FORECASTS

Housing unit-based method

*Population = occupied housing units * household size*

+ population in group quarters

- Refreshed annually
- Spatial explicit
- High accuracy

IPLS FORECASTS INPUT

Short-term forecasts:

- 1-5 years
- Residential Development Activity
 - Under Construction
 - Building Permit Issued
 - Development Plan Approved
 - Development Plan Submitted
 - Rezoning Granted
 - Rezoning Pending

Long-term forecasts:

- 6-30 years
- Comprehensive Plan
- Plan Options
- Parcel Characteristics
 - Age of Structure
 - Location
 - Steepness
 - Flood Plains
 - Etc.

IPLS FORECASTS OUTPUT

1-30 year Forecast

- Housing Units
- Households
- Population

Estimate Type

- Current (most likely)
- Low
- High

ecast Housing l	Jnits								
OBJECTID *	PIN	CURRE_YEAR_1_UNIT	LOW_ESTIM_YEAR_1_UNIT	HIGH_ESTIM_YEAR_1_UNIT	CURRE_YEAR_2_UNIT	LOW_ESTIM_YEAR_2_UNIT	HIGH_ESTIM_YEAR_2_UNIT	CURRE_YEAR_3_UNIT	LO
8057440	0911 33 0041	1	1	1	1	1	1	1	
8057745	0911 33 0042	1	1	1	1	1	1	1	
8057746	0911 33 0043	1	1	1	1	1	1	1	
	OBJECTID * 8057440 8057745	recast Housing Units OBJECTID * PIN 8057440 0911 33 0041 8057745 0911 33 0042 8057746 0911 33 0043	OBJECTID * PIN CURRE_YEAR_1_UNIT 8057440 0911 33 0041 1 8057745 0911 33 0042 1	OBJECTID * PIN CURRE_YEAR_1_UNIT LOW_ESTIM_YEAR_1_UNIT 8057440 0911 33 0041 1 1 8057745 0911 33 0042 1 1	OBJECTID* PIN CURRE_YEAR_1_UNIT LOW_ESTIM_YEAR_1_UNIT HIGH_ESTIM_YEAR_1_UNIT 8057440 0911 33 0041 1 1 1 8057745 0911 33 0042 1 1 1	OBJECTID* PIN CURRE_YEAR_1_UNIT LOW_ESTIM_YEAR_1_UNIT HIGH_ESTIM_YEAR_1_UNIT CURRE_YEAR_2_UNIT 8057440 0911 33 0041 1 1 1 1 1 8057745 0911 33 0042 1 1 1 1 1 1	OBJECTID* PIN CURRE_YEAR_1_UNIT LOW_ESTIM_YEAR_1_UNIT HIGH_ESTIM_YEAR_1_UNIT CURRE_YEAR_2_UNIT LOW_ESTIM_YEAR_2_UNIT 8057440 0911 33 0041 1 </th <th>OBJECTID* PIN CURRE_YEAR_1_UNIT LOW_ESTIM_YEAR_1_UNIT HIGH_ESTIM_YEAR_1_UNIT CURRE_YEAR_2_UNIT LOW_ESTIM_YEAR_2_UNIT HIGH_ESTIM_YEAR_2_UNIT 8057440 0911 33 0041 1</th> <th>OBJECTID* PIN CURRE_YEAR_1_UNIT LOW_ESTIM_YEAR_1_UNIT HIGH_ESTIM_YEAR_1_UNIT CURRE_YEAR_2_UNIT LOW_ESTIM_YEAR_2_UNIT HIGH_ESTIM_YEAR_2_UNIT CURRE_YEAR_3_UNIT 8057440 0911 33 0041 1</th>	OBJECTID* PIN CURRE_YEAR_1_UNIT LOW_ESTIM_YEAR_1_UNIT HIGH_ESTIM_YEAR_1_UNIT CURRE_YEAR_2_UNIT LOW_ESTIM_YEAR_2_UNIT HIGH_ESTIM_YEAR_2_UNIT 8057440 0911 33 0041 1	OBJECTID* PIN CURRE_YEAR_1_UNIT LOW_ESTIM_YEAR_1_UNIT HIGH_ESTIM_YEAR_1_UNIT CURRE_YEAR_2_UNIT LOW_ESTIM_YEAR_2_UNIT HIGH_ESTIM_YEAR_2_UNIT CURRE_YEAR_3_UNIT 8057440 0911 33 0041 1

Methods: Short-term Forecast



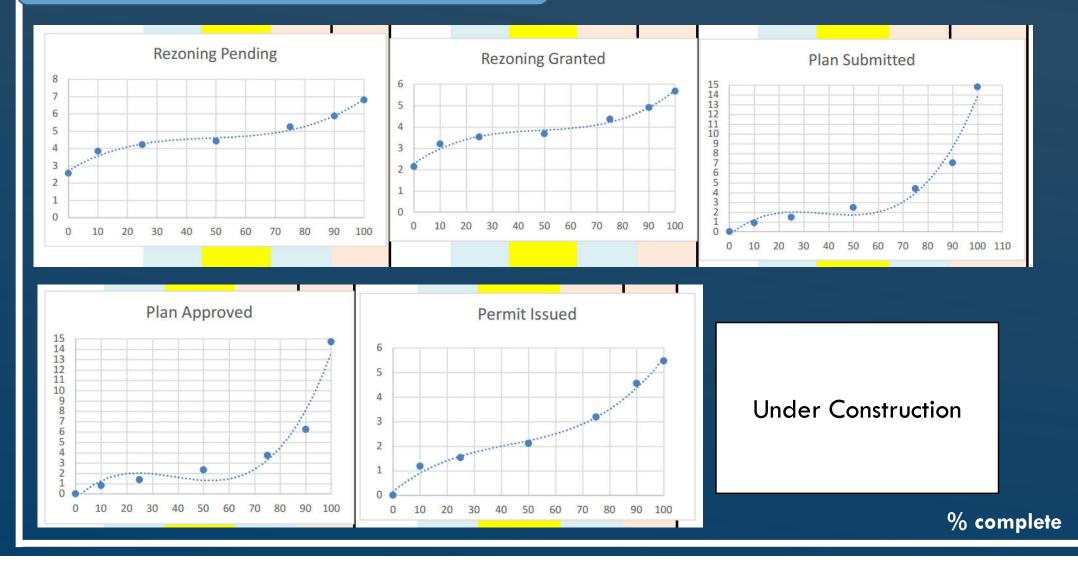
Fairfax County Government Department of Management and Budget 12000 Government Center Parkway Fairfax, Virginia 22035

Time in pipeline Fairfax County, January 01, 2015 to December 31, 2019

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100 mm 470 2477 h 10		Average number of	Standard deviation	Number of					-		
Milestone	Housing Type	days	of the mean	observations	Percentile (10)	Percentile (25)	Percentile (50)	Percentile (75)	Percentile (90)	Minimum	Maximum
PERMIT ISSUED	ALL	309.43	181.15	5421	142.84	186.15	256.95	386.77	554.09	-24.05	1996.04
PERMIT ISSUED	MF	447.84	195.58	749	238.24	315.04	447.93	584.84	699.99	-15.86	1250.99
PERMIT ISSUED	SFA	256.75	141.2	1163	133.01	167.04	214.78	297.96	434.6	67.98	865.85
PERMIT ISSUED	SFD	297.35	175.46	3509	147.05	188.07	247.2	350.06	508.12	-24.05	1996.04
PLAN APPROVED	ALL	554.58	541.24	3070	151.22	249.82	422.4	680.25	1141.44	-1574.51	5372.42
PLAN APPROVED	MF	850.18	420.99	292	486.74	544.26	691.94	1086.63	1204.57	455.63	2083.36
PLAN APPROVED	SFA	900.68	561.67	564	439.64	520.46	750.03	1124.42	1387.57	176.49	3457.62
PLAN APPROVED	SFD	427.43	494.43	2214	104.38	211.49	316.57	482.22	825.19	-1574.51	5372.42
PLAN SUBMITTED	ALL	642.97	678.94	3072	164.31	268.64	453.59	804.11	1289.79	-1553.9	5402.86
PLAN SUBMITTED	MF	1042.03	518.51	292	607.44	664.96	887.94	1315.24	1433.18	576.19	2582.73
PLAN SUBMITTED	SFA	1066.84	836.26	564	514.83	588.83	825.3	1224.07	1498.13	230.88	4791.02
PLAN SUBMITTED	SFD	482.5	577.51	2216	112.94	230.6	337.95	526.33	945.52	-1553.9	5402.86
REZONING PENDING	ALL	1431.31	275.54	182	1166.08	1285.63	1343.53	1594.59	1790.43	781.62	2071.51
REZONING PENDING	MF	1542.5	120.16	46	1367.05	1508.59	1548.56	1594.59	1739.46	1317.47	1742.55
REZONING PENDING	SFA	1446.62	347.04	86	1162.55	1244	1333.11	1679.86	2019.36	781.62	2071.51
REZONING PENDING	SFD	1302.67	171.37	50	1099.17	1201.97	1296.57	1364.31	1488.03	967.6	1790.52

Methods: Short-term Forecast

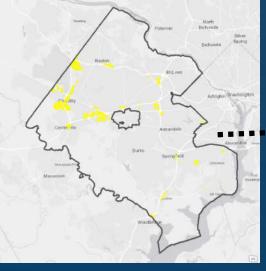


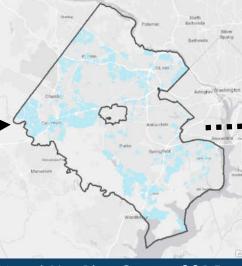
Methods: Short-term Forecast

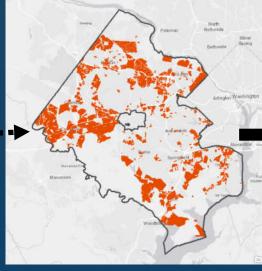
FOREC_GROUP	FOREC_GROUP_DESCR	YEAR_1	YEAR_2	YEAR_3	YEAR_4	YEAR_5
UCONSTR	Residential Development Pipeline - Under Construction	0.8000	0.8800	0.9000	0.9800	1.0000
BLDPRMT	Residential Development Pipeline - Building Permit, No Construction	0.1200	0.6600	0.8500	0.9000	0.9500
DPSUBMT	Residential Development Pipeline - Development Plan Submitted	0.1000	0.1300	0.2800	0.7500	0.7600
DPAPPRV	Residential Development Pipeline - Development Plan Approved	0.1500	0.2800	0.6000	0.6700	0.7500
RZGRNTD	Residential Development Pipeline - Rezoning Granted	0.0000	0.0000	0.0300	0.1200	0.4500
RZPNDG	Residential Development Pipeline - Rezoning Pending	0.0000	0.0000	0.0200	0.1000	0.1400
FOREC_GROUP	FOREC_GROUP_DESCR	YEAR_10	YEAR_15	YEAR_20	YEAR_25	VALID
UCONSTR	Residential Development Pipeline - Under Construction	1.0000	1.0000	1.0000	1.0000	2021-
BLDPRMT	Residential Development Pipeline - Building Permit, No Construction	1.0000	1.0000	1.0000	1.0000	2021-
DPSUBMT	Residential Development Pipeline - Development Plan Submitted	0.9300	0.9400	0.9500	0.9600	2021-
DPAPPRV	Residential Development Pipeline - Development Plan Approved	0.9600	0.9800	0.9800	0.9800	2021-
		0.8400	0.9000	0.9100	0.9200	2021-
RZGRNTD	Residential Development Pipeline - Rezoning Granted	0.8000	0.8100	0.8500	0.8500	2021-
RZPNDG	Residential Development Pipeline - Rezoning Pending	0.3000	0.4000	0.5000	0.7000	2021-

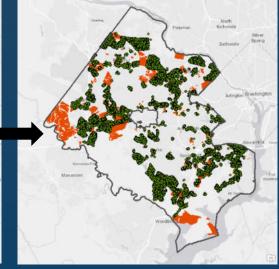
Methods: Long-term Forecast

FOREC_GROUP	FOREC_GROUP_DESCR	YEAR_1	YEAR_6	YEAR_10	YEAR_15	YEAR_20	YEAR_25	YEAR_30	VALID
SALE	Vacant Parcel Sold in Past Two Years	0.0000	0.2500	1.0000	1.0000	1.0000	1.0000	1.0000	2021-
MXUPO	Mixed Use Plan Option	0.0120	0.0230	0.0730	0.1490	0.2280	0.3030	0.3700	2021-
NEWBLD	Structure on Parcel 15 or Fewer Years Old	0.0000	0.0000	0.0000	0.0000	0.0500	0.2000	0.3500	2021-
NORM	No Special Designation	0.0150	0.0660	0.1250	0.1950	0.2200	0.2400	0.2700	2021-
NOTBLD	Not Buildable	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2021-
RPA	80% to 100% Resource Protection Area	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2021-
SMPOT	Small Potential for Additional Units	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2021-
TAXEX	Vacant Parcel Tax Exempt Status	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2021-









Mixed-Use Plan Option, 2005

Mixed-Use Plan Option, 2015

Mixed-Use Plan Option, 2021

Overlayed with Housing Units

IPLS FORECASTS ACCURACY

Short-term forecasts:

- •1-5 years
- 5-year Projection
 Accuracy: 99.3%
 - Data 2007-2021
 - 0.7% average percent error (over-forecasted)

Long-term forecasts:

- •6-30 years
- 10-year Projection
 - Accuracy: 97.6%
 - Data 2007-2021
 - 2.4% average percent error (over-forecasted)

Data Access for Data Users

Public Access

- Fairfax OpenData
 - <u>Demography > IPLS</u>
- Demographic Mapper
 - Selectable Summary Data
 - CDP, Block Groups and Zip-codes
- Demographic Reports
 - <u>Summary Data</u>

Fairfax County Internal Access

- SQL Database Server
- ArcMap/ArcPro
 - Toolbars > FFX DataLoader v4.0
 - Geodatabase server
- ArcMap IPLS Extension

Fairfax County Geospatial Data

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Seach Open Data

Open Data

How to Search and Access Data

Fairfax County, Virginia offers over 170 GIS data layers to view and/or download. (View the full list)

Use the search bar at the top of the page, or the links below, to find data. Datasets can be filtered to contain only the features of the dataset of interest. Data are offered in several formats including: CSV, KML, shapefile, and JSON. It is suggested that downloaded data be reprojected to the local coordinate system.

By accessing any of the data, maps, or applications provided by Fairfax County, you agree to the terms in our disclaimer.

Any error reports or questions about Fairfax County's geospatial data should be directed to the Fairfax County GIS Branch.

Explore Data Categories













Boundaries

Culture & Society

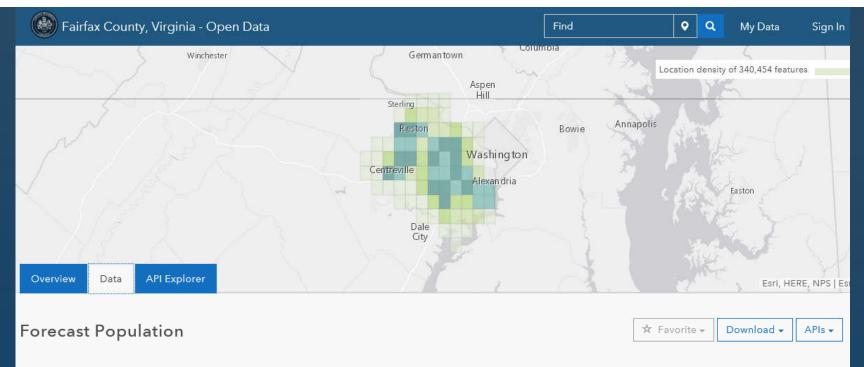
Demography

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Education

Election

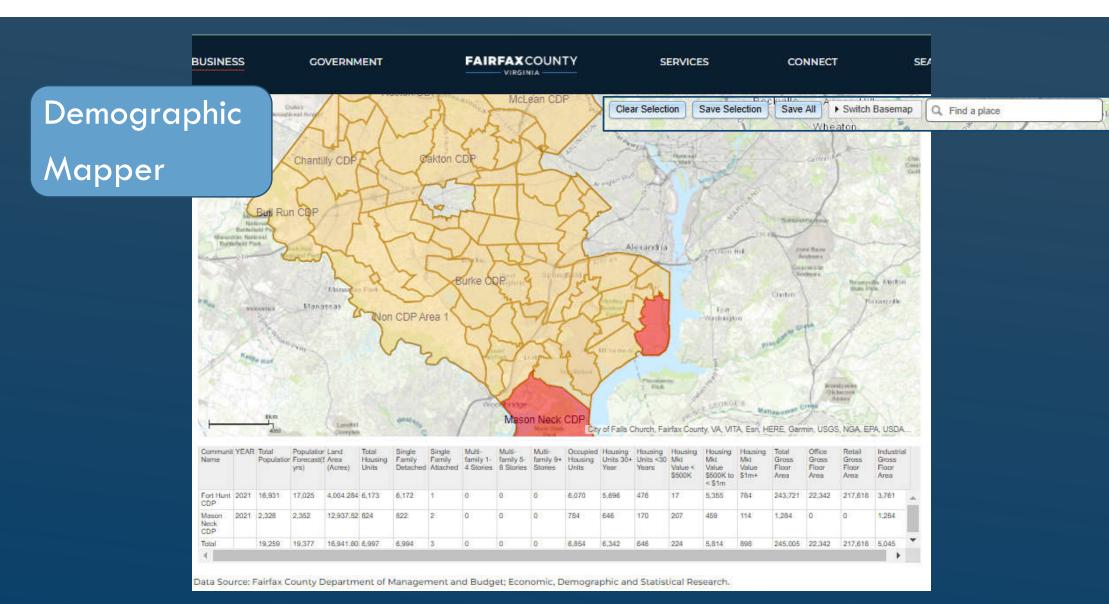
http://data-fairfaxcountygis.opendata.arcgis.com/



Showing 1 to 10 of 340,454

Hint: Click on 🔻 to filter columns.

▼ OBJECTID	▼ PIN	▼ CURRE_YEAR_1_POPUL	▼ LOW_ESTIM_YEAR_1_POPUL	▼ HIGH_ESTIM_YEAR_1_POPUL	▼ CURRE_YEAR_2_PC
1	0253 09 0189	3.278	3.1	3.458	3.278
2	0253 09 0301	3.278	3.1	3.458	3.278
3	0253 09 0339	3.278	3.1	3.458	3.278
4	0244 09020205	2.209	2.089	2.33	2.209
5	0244 09020209	2.209	2.089	2.33	2.209
6	0251 17 0051	3.25	3.225	3.275	3.25
7	0251 17 0076	3.25	3.225	3.275	3.25



https://www.fairfaxcounty.gov/demographics/interactive-map-communities-places-and-towns

Demographic Reports

DEPARTMENT RESOURCES

Home

About Us

Fairfax County Overview Community Profiles Demographic Mapper Find by Topic Find by Geography Data Visualization Gallery Recent Reports Census Summaries Guide for Data Users Research Tools Glossary of Terms Archives



DEMOGRAPHIC REPORTS

Small area housing, population, development, and land use information. Estimates and projections of data presented by supervisor district, planning district, human services region, and census tract and block group. Please note that the geographies contained in the reports have changed over time.

2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2005-2006 | 2004 | 2003 | 2002 | 2001 | 2000 | 1999 | 1998 | 1997 | 1996 | 1995 | 1994 | 1993 | 1992 | 1991 | 1990 | 1989 | 1988 | 1987 | 1986 | 1985 | 1984 | 1983 | 1982 | 1981 | 1980 | 1979 | 1978 | 1977 | 1976 | 1975 | 1974 | 1973

https://www.fairfaxcounty.gov/demographics/reports

Reports

Data Access for Data Users

Public Access

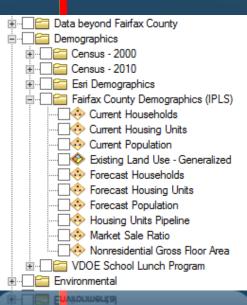
- Fairfax OpenData
 - <u>Demography > IPLS</u>
- Demographic Mapper
 - <u>Selectable Summary Data</u>
 - CDP, Block Groups and Zip-codes
- Demographic Reports
 - Summary Data

Fairfax County Internal Access

• SQL Database Server

ArcMap/ArcPro

- Toolbars > FFX DataLoader v4.0
- Geodatabase server
- ArcMap IPLS Extension



VDOE School Lunch Program

ArcMap IPLS Extension

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About IPLS Create Maps	Generate Inventory of Wholesale and Warehouse Storage Facilities Report
	Generate Inventory of Vacant Land Planned for Commercial/Industrial Use Report
	Generate Housing Unit Market Value Report
	Generate Residential Condominium Housing Projects Report
	Generate Report and Map of Underutilized Residential Land
	Generate Demographic Estimates and Forecasts Report
	Generate Housing Units Added After January 1st Report
	Generate Housing Unit Started Report and Map
	Generate Housing Unit Authorized Report and Map
	Generate Existing Land Use Reports by Custom Layer
	Generate Zoning Reports by Custom Layer
	Untitled - ArcMap
Customize Windows Help IPLS	
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About IPLS Create N	
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IPLS EXTENSION REPORTING TOOL OUTPUTS

• Report

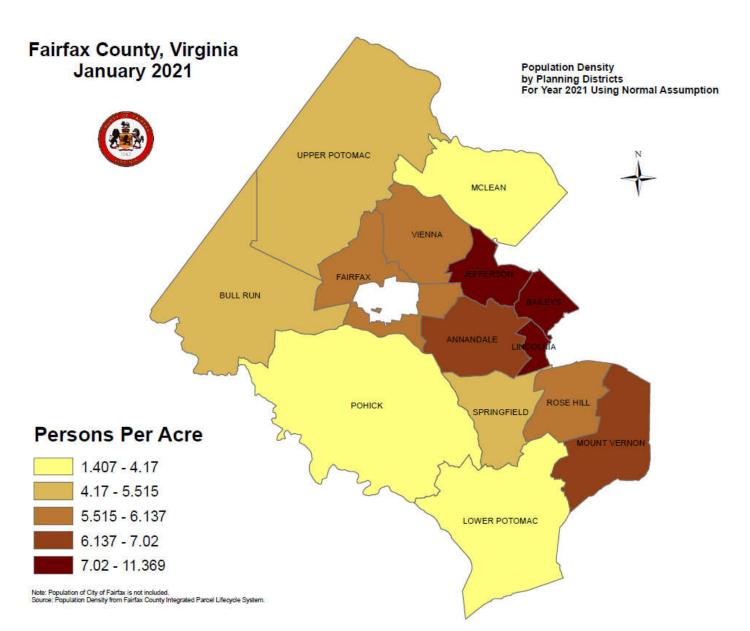
- Current and Forecasted Population, Housing Units & Households
- Market Value of Housing Units
- Residential Condominiums Inventory
- Office Space Inventory
- Wholesale & Warehouse Storage Facilities Inventory
- Existing Land Use Acres by Custom Geography
- Zoned Acres by Custom Geography

- Report and Map
 - Housing Units Authorized by Building Permits
 - Housing Starts
 - Housing Units Completed
 - Vacant Land Planned for Commercial or Industrial Use
 - Underutilized and Vacant Land Planned for Residential Use
- Map
 - Population Density Map

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	Note: Population inc geography depending									ide totals	may vary	/ by										
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19	Planning Districts	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
and the second second	ANNANDALE	75,925	76,094	76,256	76,431	76,503	76,565	76,686	76,802	76,943	77,102	77,257	77,392	77,547	77,695	77,847	77,987	78,125	78,251	78,376	78,507	78,642
	BAILEYS BULL RUN	46,030 135,934	46,357	46,501	46,544	46,574	46,599	46,807	47,089	47,469	47,873		48,632	49,061	49,478	49,908	50,324 148,473	50,745 149,272	51,177 149,947	51,595	52,082 151.356	52,500 152,016
a construction of	FAIRFAX	75.237	75.282	75,488	75,736	76.057	76,600	77,185	77.603	77.848	78,163	78,401	78,568	78,767	78.938	79,129	79,312	79,481	79,649	79,809	79.987	80,129
24	JEFFERSON	61,064	61,710	61,854	61,935	62,151	62,178	62,321	62,516	62,753	63,006	63,226	63,487	63,741	63,995	64,249	64,517	64,777	65,039	65,295	65,555	65,826
-	LINCOLNIA	19,317	19,405	19,506	19,595	19,618	19,642	19,700	19,762	19,830	19,906	19,973	20,036	20,121	20,196	20,272	20,345	20,422	20,498	20,574	20,649	20,725
	LOWER POTOMAC	and the second se	41,372		41,569	41,596	41,615	41,726	41,866	42,046	42,211	42,309	42,518	42,726		43,100	43,213	43,430	43,633		43,994	44,146
and the second second	MCLEAN MOUNT VERNON	80,617	82,615 98,787		85,752	87,343	87,860	88,816	89,777	90,856	91,943 106,570	92,884	94,002	95,012 108,944	and the second s	97,055	98,105	and the second s	100,206	101,233		103,332
-	POHICK		142,563	the second s	142,867			and the second		the second second second	and the second se		and the second	- A Contraction of the Contracti				the second s		144,456	and the second se	
	ROSE HILL	53,905	54,108	and the second second second	54,387	54,436	54,474	54,679	54,803	54,913	55,040	and the second se	55,432	55,557		55,917	56,077	56,306	56,447	- Contraction of the second	56,825	56,983
	SPRINGFIELD	57,534 206,032	57,439		57,627	57,669	57,686	57,871	58,127	58,416	58,774	59,068	59,366	59,740		60,435	60,768	61,150	61,466	61,833 256,771	62,198	62,540
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Map Parameters

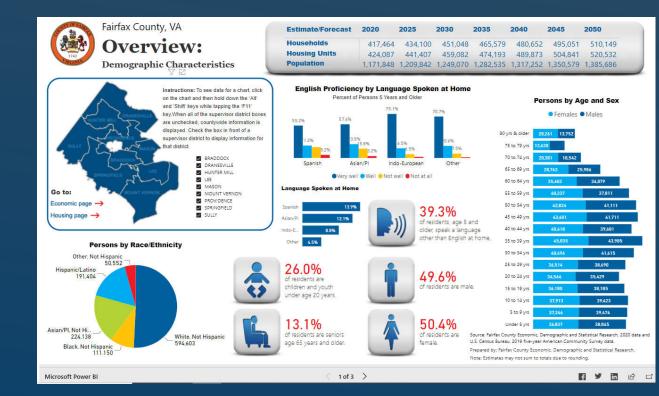
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APPLICATIONS: DERIVED DATA PRODUCTS FROM ESTIMATES

EXAMPLE - ACCURATE & CURRENT DEMOGRAPHIC DATA

- Combine IPLS estimates with Census Data using percentages.
 - 2019 5-year ACS Census
 - Age and Sex
 - Males under 5-yrs old =
 - 38,845 (3.3 %)
 - IPLS 2020 estimates
 - Population Total =
 - 1,171,848
 - (IPLS Pop Total) x (Age and Sex %)
 - 1,171,848 x 3.3% = 38,845
 - IPLS Males under 5-yrs old estimate= 38,845



APPLICATIONS: DERIVED DATA PRODUCTS FROM FORECASTS

• Spatial explicit, temporal relevant forecasts

on Housing Units, Households, and Population

- MWCOG Cooperative Forecasting Program

- Residential development activity by stage of development by geography
 - Demographic report Table 9.1-9.5
- Data aids for planning and effective government
 - 2020 Decennial Census geography delineation
 - Understand residential vacancy and household status
 - School planning, Public Safety, Public works, etc.

FORECAST POPULATION DENSITY AND GROWTH IN 30 YEARS

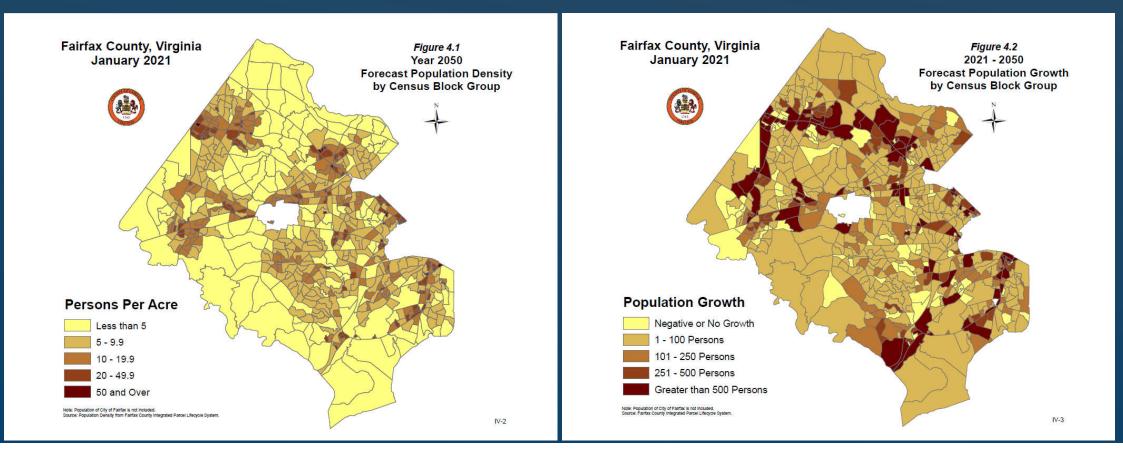


Table 9.1

Residential Development Activity by Stage of Development by Supervisor District Fairfax County, January 2021

Supervisor	Un	der Cor	structio	on	Building Permit Issued, No Construction				Development Plan Approved				Development Plan Submitted			
District	MF	SFA	SFD	Total	MF	SFA	SFD	Total	MF	SFA	SFD	Total	MF	SFA	SFD	Total
Braddock			14	14			73	73		86		86			50	50
Dranesville 1/	56	46	154	256	306		101	407	1,616	195	158	1,969	1,584	141	146	1,871
Hunter Mill 2/	1,047	59	59	1,165	230	31	141	402	882	134	16	1,032	96	40	10	146
Lee	344	5	24	373	169		100	269		41	90	131			1	1
Mason	3	7	32	42		6	64	70		86	25	111			3	3
Mount Vernon	10	20	37	67	573	8	105	686	1,406	201	42	1,649			53	53
Providence	530	41	30	601	774	42	149	965	1,068	22	24	1,114	771	733	19	1,523
Springfield 3/	85	22	26	133	7		108	115	90	29	172	291	169	171	38	378
Sully	45	108	18	171	256	89	221	566	340	483	17	840	100	435		535
Fairfax County	2,120	308	394	2,822	2,315	176	1,062	3,553	5,402	1,277	544	7,223	2,720	1,520	320	4,560

Supervisor	R	ezoning	Grante	d	R	ezoning	Pendin	g	Total Development Activity				
District	MF	SFA	SFD	Total	MF	SFA	SFD	Total	MF	SFA	SFD	Total	
Braddock	580		2	582			15	15	580	86	154	820	
Dranesville 1/	4,471	409		4,880					8,033	791	559	9,383	
Hunter Mill 2/	2,446	26	4	2,476			3	3	4,701	290	233	5,224	
Lee									513	46	215	774	
Mason									3	99	124	226	
Mount Vernon	1,039	21		1,060			11	11	3,028	250	248	3,526	
Providence	637		24	661	366	24	5	396	4,146	862	251	5,260	
Springfield 3/									351	222	344	917	
Sully									741	1,115	256	2,112	
Fairfax County	9,173	456	30	9,659	366	24	35	425	22,096	3,761	2,385	28,242	

Source: Fairfax County Department of Management and Budget, 2021.

Note: Only development stages with current activity are shown in the table. SFD are single family detached housing units. SFA are single family attached housing units which include townhouses, duplexes and multiplexes. MF are multifamily housing units which include apartments, condominiums and cooperatives. Countywide totals may vary by table depending on how well the geographic layer aligns with county boundaries.

1/ Includes the Town of Hemdon. 2/ Includes the Town of Vienna. 3/ Includes the Town of Clifton.

DATA IN ACTION

• Fire & Rescue Department

 Analyze population growth for planning and forecasting the need for additional fire stations and emergency response units throughout the county.

• Dept. of Planning and Development

 Uses population forecast data to aid in land use scenarios for the Embark Richmond Highway Plan Amendment and planning of the Bus Rapid Transit and other study areas.

• Department of Public Works and Environmental Services

 Wastewater Planning and Monitoring Division uses IPLS population data in their wastewater hydraulic model to forecast wastewater flows and capacity needs.

• Fairfax Water

• Uses population forecast data in their comprehensive master plan to predict water demand at the parcel level and accurately plan for future system improvements.

• Fairfax County Public Schools

• Uses housing data and student address data to compute student 'yields' ratios (# of FCPS school age students by housing type) for small geographic areas.

• Metropolitan Washington Council of Governments

 The 30-year forecasts of population and households are used in planning and modeling activities at COG. The program enables local, regional, and federal agencies to coordinate planning activities using common assumptions about future growth and development. Methodology: Appendix A <u>https://www.fairfaxcounty.gov/demographics/sites/demograp</u> <u>hics/files/assets/demographicreports/fullrpt.pdf</u>

Data Visualization Gallery https://www.fairfaxcounty.gov/demographics/datavisualization-gallery

Data Dictionary <u>https://www.fairfaxcounty.gov/demographics/sites/demograp</u> <u>hics/files/assets/datadictionary/ipls-data-dictionary-gis.pdf</u>