



JUNIOR AGRARIANS

Young Agrarians in B.C. is a partnership with:





— YOUNG AGRARIANS —



ONLINE COMMUNITY ENGAGEMENT

EDUCATION: EVENTS & WORKSHOPS

LAND ACCESS

BUSINESS MENTORSHIP

Website, Blog,
Social Media &
Resource U-Map

'Community as
Extension
Services Model'
Farmer-
2-Farmer
Learning &
Networking
Opportunities

Landlinking
Workshops,
Tools, Land
Matching Pilot

Pairing
Experienced
Mentors with
Farmers in
Start-Up



GROW A
FARMER



2012

2013

2014

2015

2016

LOWER MAINLAND LAND MATCHING PROGRAM PILOT

A person wearing a white long-sleeved shirt, a headband, and a large white bag slung over their shoulder is bent over, working in a field of green plants. The background is a misty, hazy landscape with trees. The text "got land?" is overlaid in large white letters.

got land?

2016-2017 Lower Mainland Land Matching Pilot was a partnership with the City of Surrey, in collaboration with Quebec's ARTERRE, and funded by:



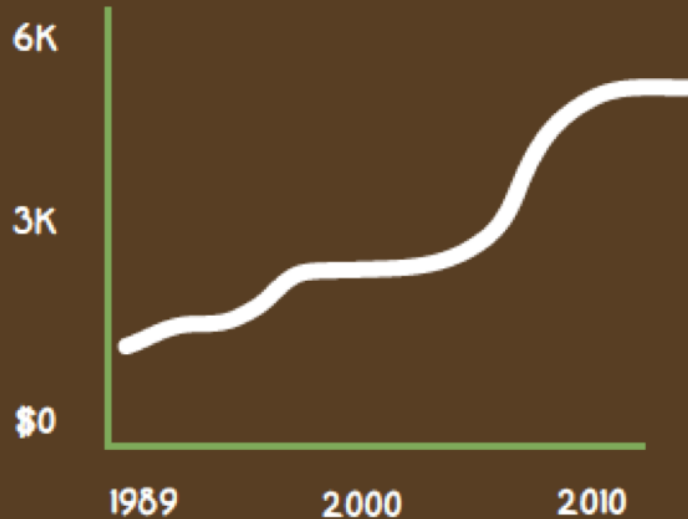
FUNDING PROVIDED BY



WHY LAND MATCHING?

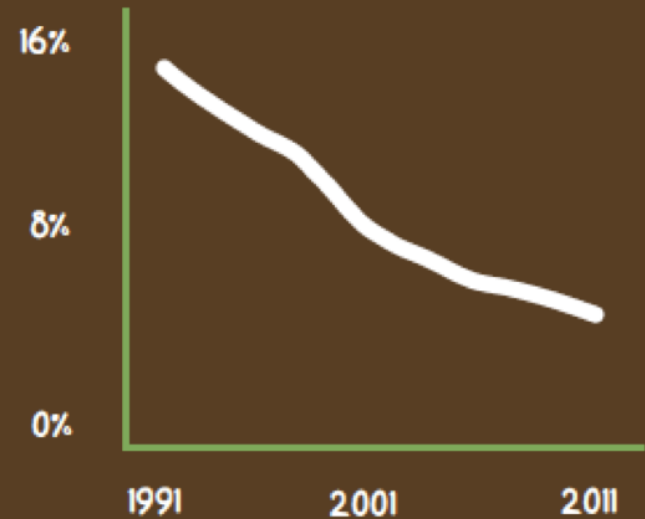
VALUE PER ACRE OF FARM LAND & BUILDINGS IN BC

\$ IN CANADIAN DOLLARS



PERCENT OF TOTAL FARM OPERATORS IN BC UNDER 35

% YOUNG FARM OPERATORS



THE GREAT LAND SHIFT

74% 

OF FARMERS SAY THEY WILL SELL THEIR FARM IN THE NEXT 10 YEARS

Faciliter l'accès au monde agricole



Propriétaire

Vous êtes propriétaire, vous disposez de parcelles ou d'actifs disponibles pour la relève ou encore vous souhaitez transférer ou louer votre ferme?

M'inscrire



Aspirant-agriculteur

Vous avez un projet d'établissement en agriculture, vous recherchez une terre ou une ferme pour développer votre projet?

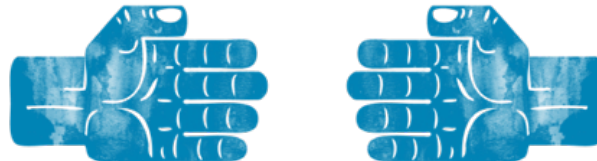
M'inscrire

QUEBEC LAND MATCHING: ARTERRE

- Program expanding in 2018 from 8 to 30 Counties with Land Matchers
- ARTERRE provides the expertise and training. Counties hire the matchmakers for their regions.
- 30 land matchers after first year of development will average 5-7 matches/year = 150-210 new farmer businesses established annually in Quebec with tenured land agreements
- ARTERRE is increasing its service offering from leases to support more complex farm transfer scenarios.

YOUNG AGRARIANS LAND MATCHING PROGRAM

- Puts land into production & ensures existing farmland continues to be farmed;
- Supports new farmers to get “enterprise ready” by connecting them with business planning and farm extension support;
- Addresses farmer and land owner lack of knowledge around leasing and farm start up;
- Encourages development of secure, long-term agreements;
- Tracks impact through number of new farm businesses;
- Supports agricultural area plans;
- Tells a positive story on how local governments are supporting the next generation of farmers and agriculture.



UMAP: LAND & FARMER INVENTORY

— YOUNG AGRARIANS —

ABOUT

EVENTS

TOOLS

MEDIA FARM

U=MAP

SHOW ALL



LAND RESOURCES 20 LAND LISTINGS 72

FARMERS LOOKING FOR LAND 62

LAND RESOURCES

FarmableNow.ca
SURREY, BC

VIEW ON
MAP
➔

LAND LISTINGS

Farm Land for rent/lease in Surrey
SURREY, BC

VIEW ON
MAP
➔

FARMERS LOOKING FOR LAND

Looking for space to incubate vertic...
SURREY, BC

VIEW ON
MAP
➔

LAND LISTINGS

14 Acres of General Agriculture Zon...
SURREY, BC

VIEW ON
MAP
➔

FARMERS LOOKING FOR LAND

Looking for 1 Acre Land
SURREY, BC

VIEW ON
MAP
➔

LAND LISTINGS

8171 176 ST. Surrey
SURREY, BC

VIEW ON
MAP
➔

FARMERS LOOKING FOR LAND

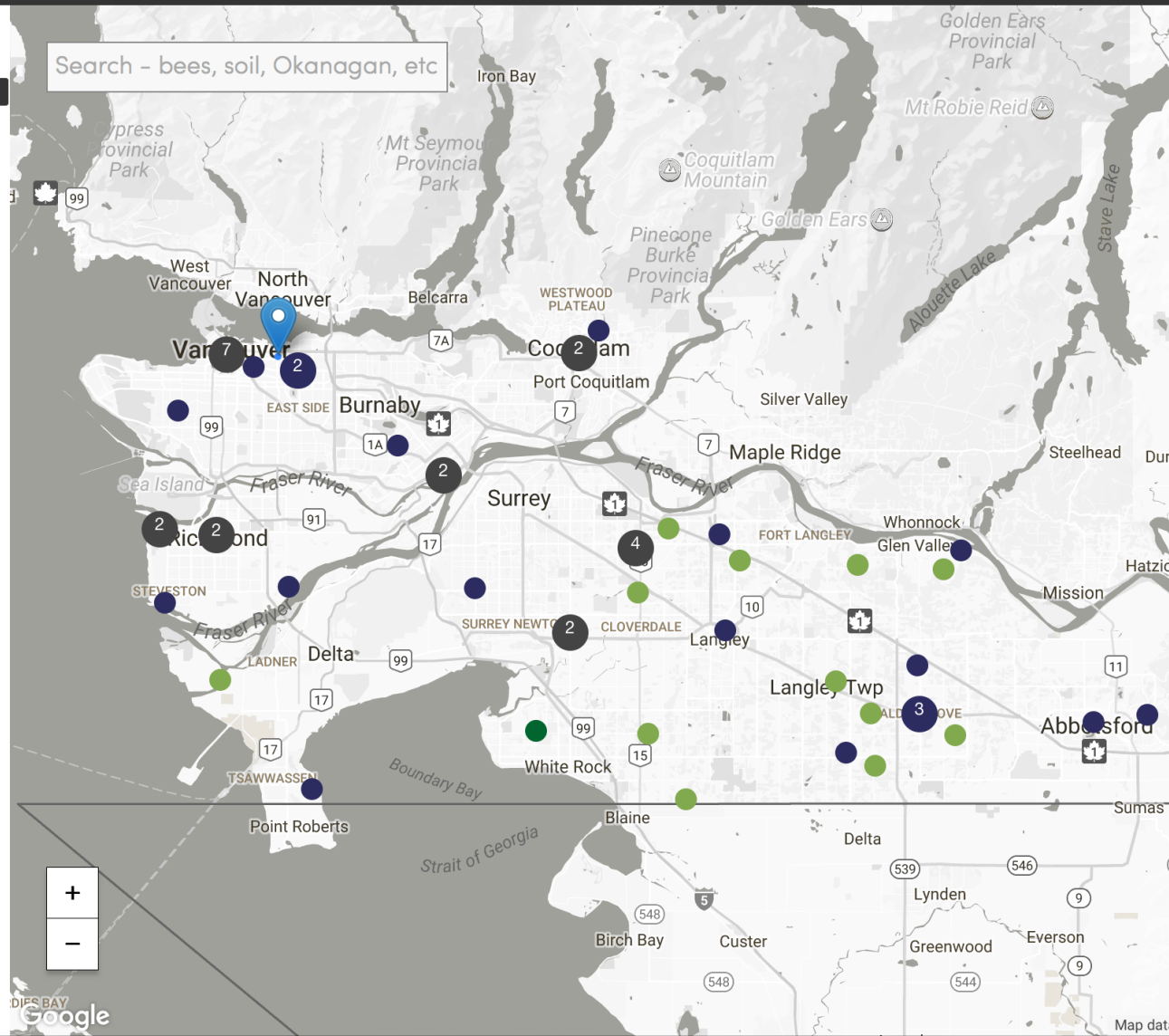
Land for goat farm
SURREY, BC

VIEW ON
MAP
➔

LAND LISTINGS

Fallow acres available
SURREY, BC

VIEW ON
MAP
➔



ANNUAL LAND LINKING EVENTS



YOUNG AGRARIANS

Want Land? Got Land?

Sunday, March 11th, 2018 | Richmond, BC

11am-4pm Land Linking Workshop



LAND MATCHING IMPACT 2016-2017

- 176 Lower Mainland inquiries by phone, email, in person (283 in BC)
- 21 Lower Mainland UMAP Land Listings (49 in BC) / 25 New Farmer Listings (38 in BC)
- 45 Program Participants (19 Land owners / 26 Land seekers)
- 5 matches made by Land Matcher (30 acres)
 - 2x Surrey, 1x Maple Ridge, 1x Delta, 1x Langley
- 52 Lower Mainland agricultural organizations & affiliates outreached to (3 Ag Universities: KPU, UBC, UFV)
- 9 Press hits and articles
- 1 community event hosted in partnership with City of Surrey
- 2018: 8 more matches in negotiation (33.5 acres)
 - 4x Surrey, 1x Richmond, 1x Chilliwack, 1x Squamish, 1x Delta



2018 LAND MATCHING PROGRAM

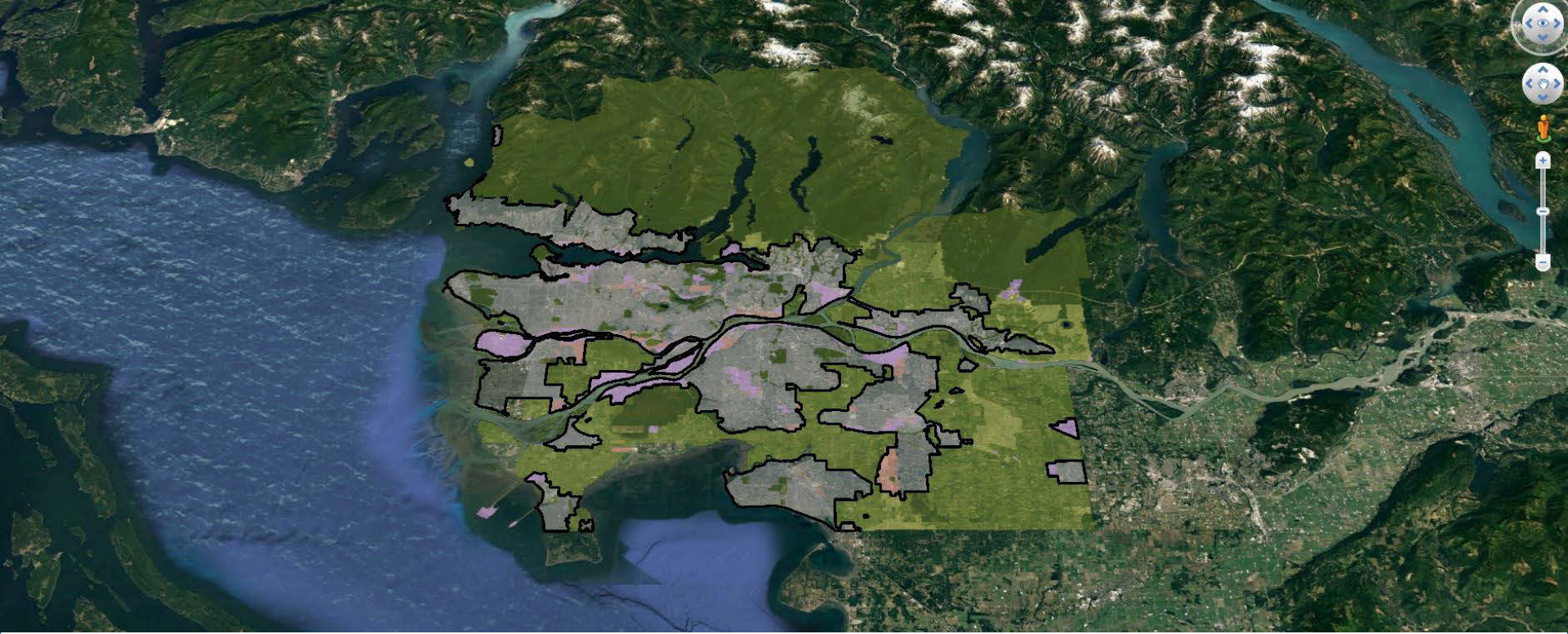
SUCCESS INDICATORS: METRO VANCOUVER

- # of land matches / new farm businesses started in the region 7-9
- # of people reached through email, phone and in person 100-250
- # of people reached online through land communications 5,000-10,000
- # of people that attend annual Land Linking Workshop 50-100
- # of downloads and print copies disseminated of the BC Land Access Guide, Lease & License Templates 150-300
- # of new listings on U-MAP 25-50
- # of additional land resources added to U-MAP 5-10

Got
land?







Metro Vancouver Growth Analytics and Projections

Terry Hoff

SENIOR REGIONAL PLANNER

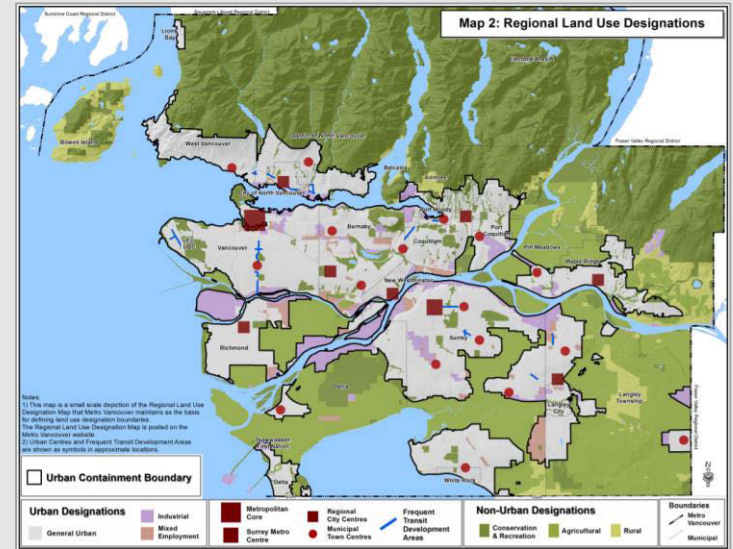
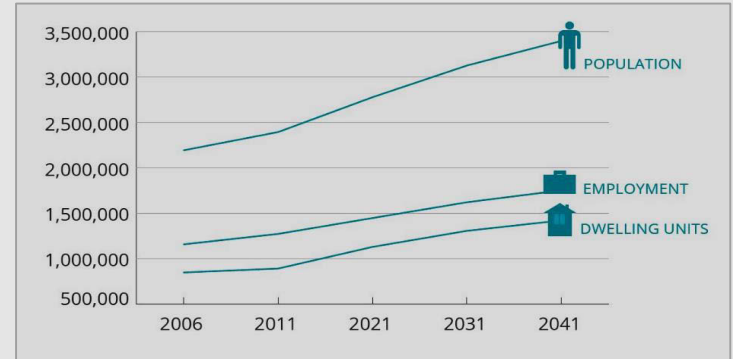
April 5, 2018



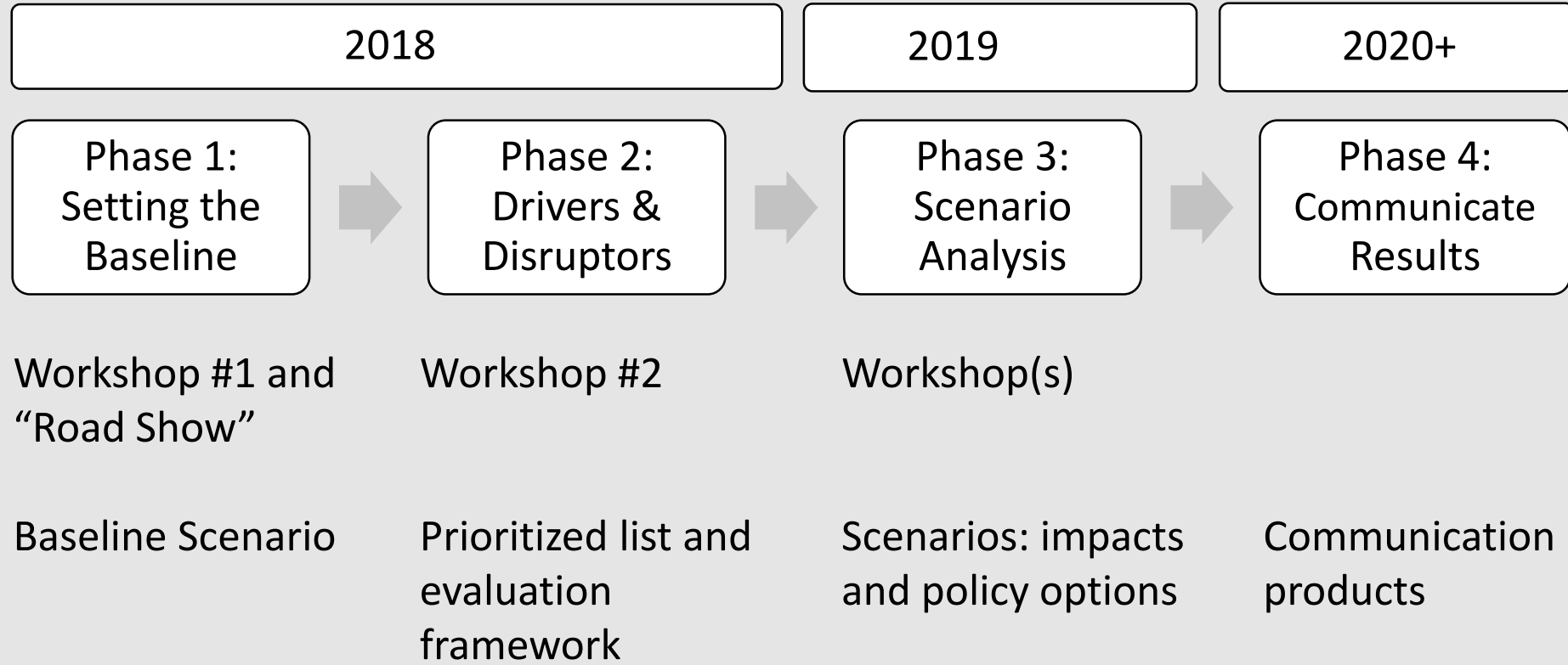
metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

Project Objectives

- General agreement on longer-term projections
- Test resilience against emerging drivers and disruptors
- Inform next regional growth strategy
- Support capital investment decisions (utilities) and transportation planning



Process



Regional Growth Strategy Municipal Collaboration Land Use and Development

Google earth

Image © 2016 Province of British Columbia
Image © 2016 MITCAN
Image © 2016 DigitalGlobe

metrovancover



Regional Growth Strategy
Bylaw No.1136, 2010

Metro Vancouver 2040 Shaping Our Future

Adopted by the Greater Vancouver Regional District Board on July 29, 2011
Adopted by July 28, 2017

Regional Water Services

Capilano

Seymour

Coquitlam

Google earth

Image © 2016 Province of British Columbia

Image © 2016 MTCAN

Image © 2016 DigitalGlobe

Regional Sewerage Services

Lions Gate

Iona

Annacis

Lulu

Northwest
Langley

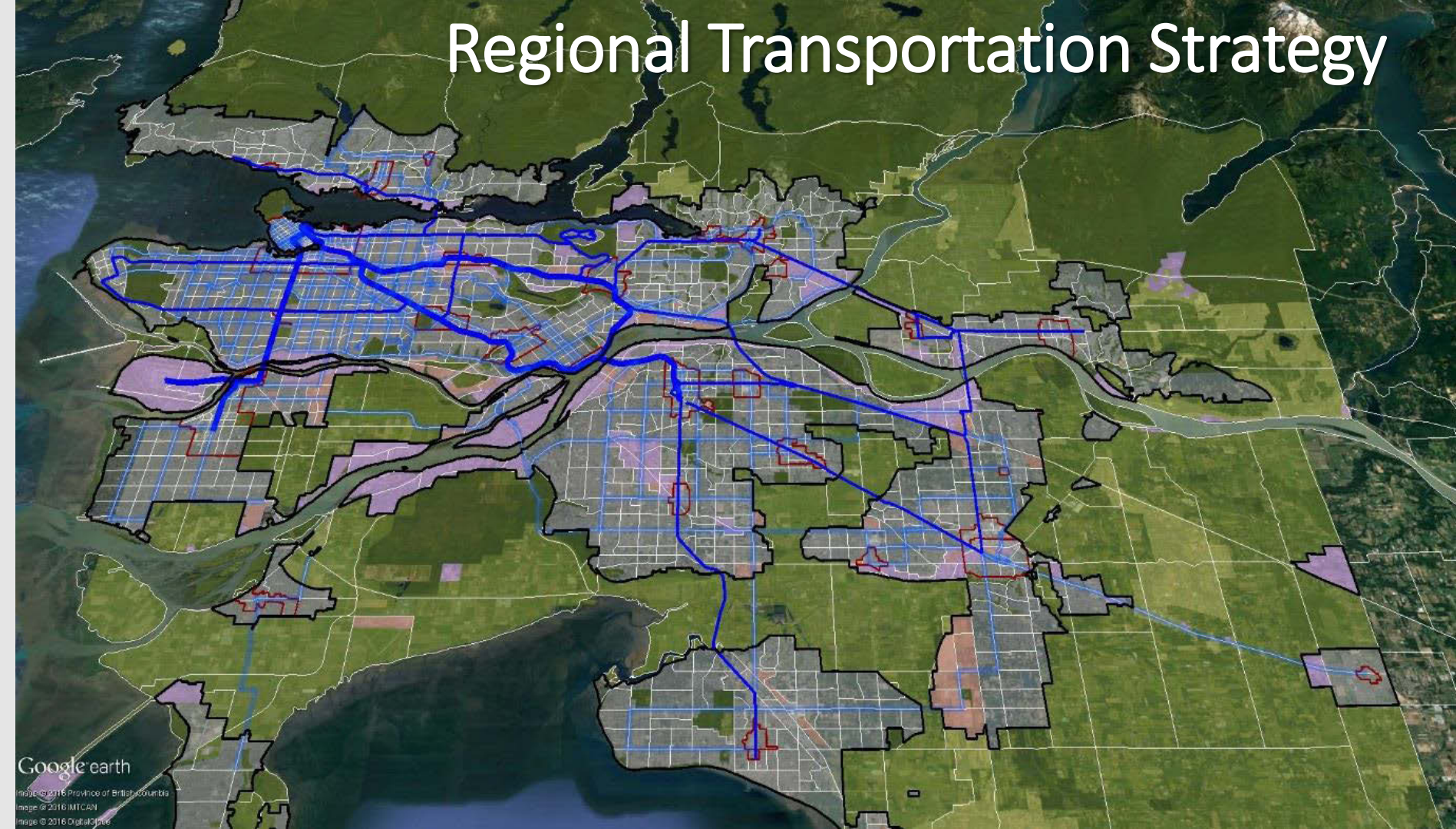
Google earth

Image © 2016 Province of British Columbia

Image © 2016 MTCAN

Image © 2016 DigitalGlobe

Regional Transportation Strategy



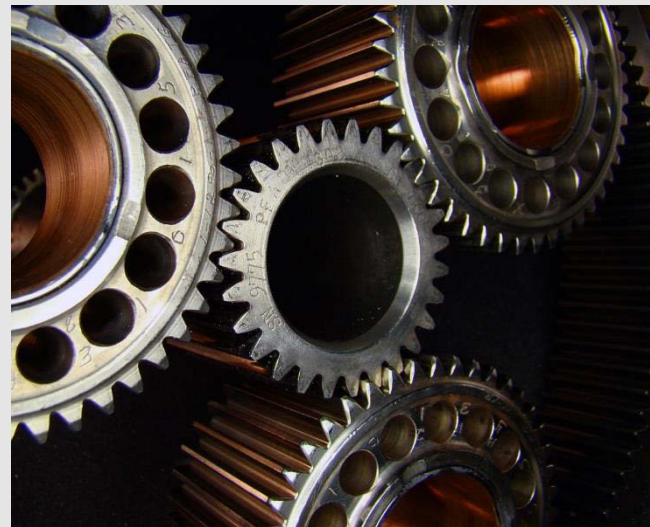
Google earth

Image © 2016 Province of British Columbia
Image © 2016 MTCAN
Image © 2016 DigitalGlobe

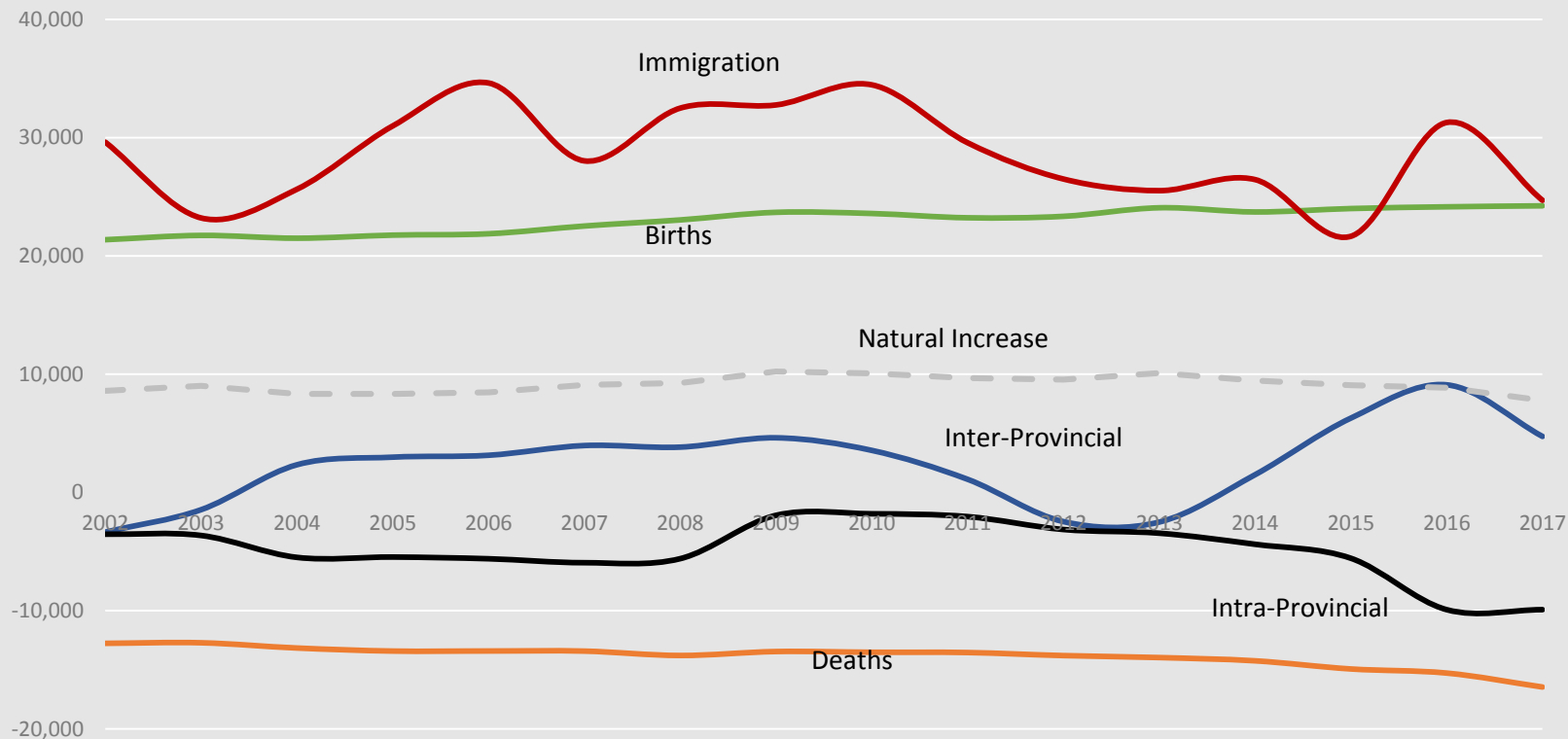
Growth Analytics and Projections

Primary Inter-related Components

- Population – regional, municipal, sub-municipal
- Housing – households, structure type
- Land Capacity – land supply, use and density
- Employment – labour force and economy

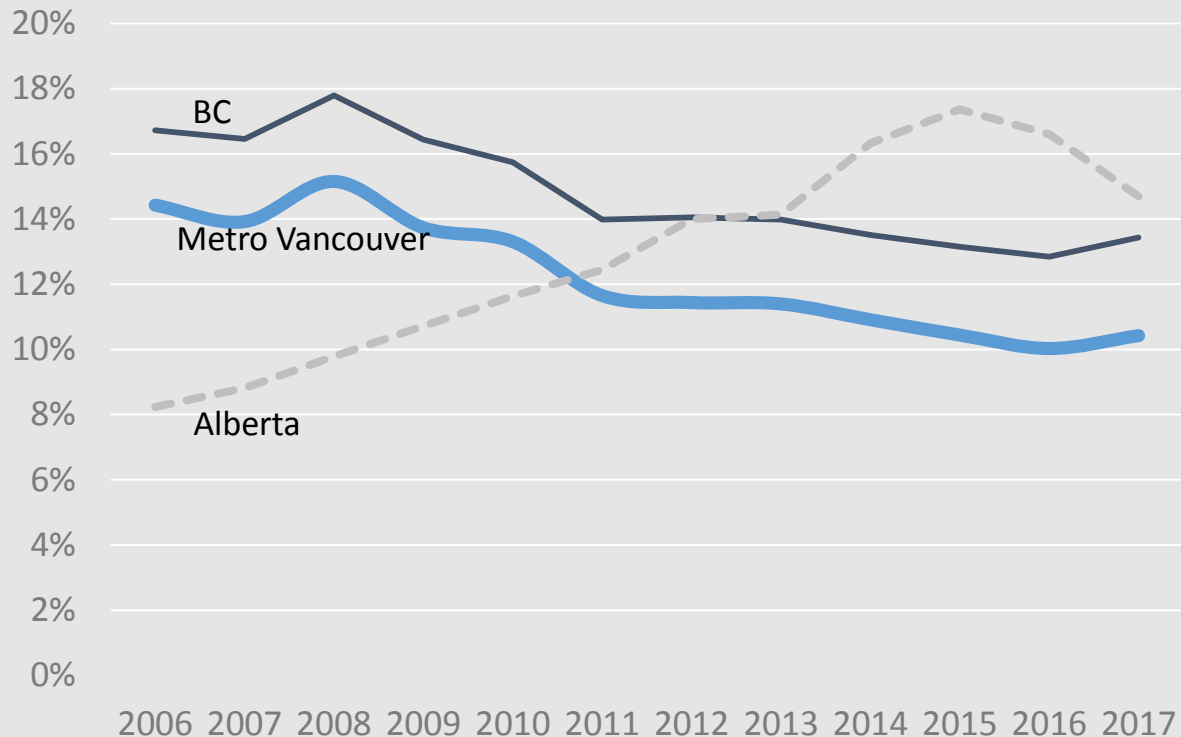


Demographic Components of Growth

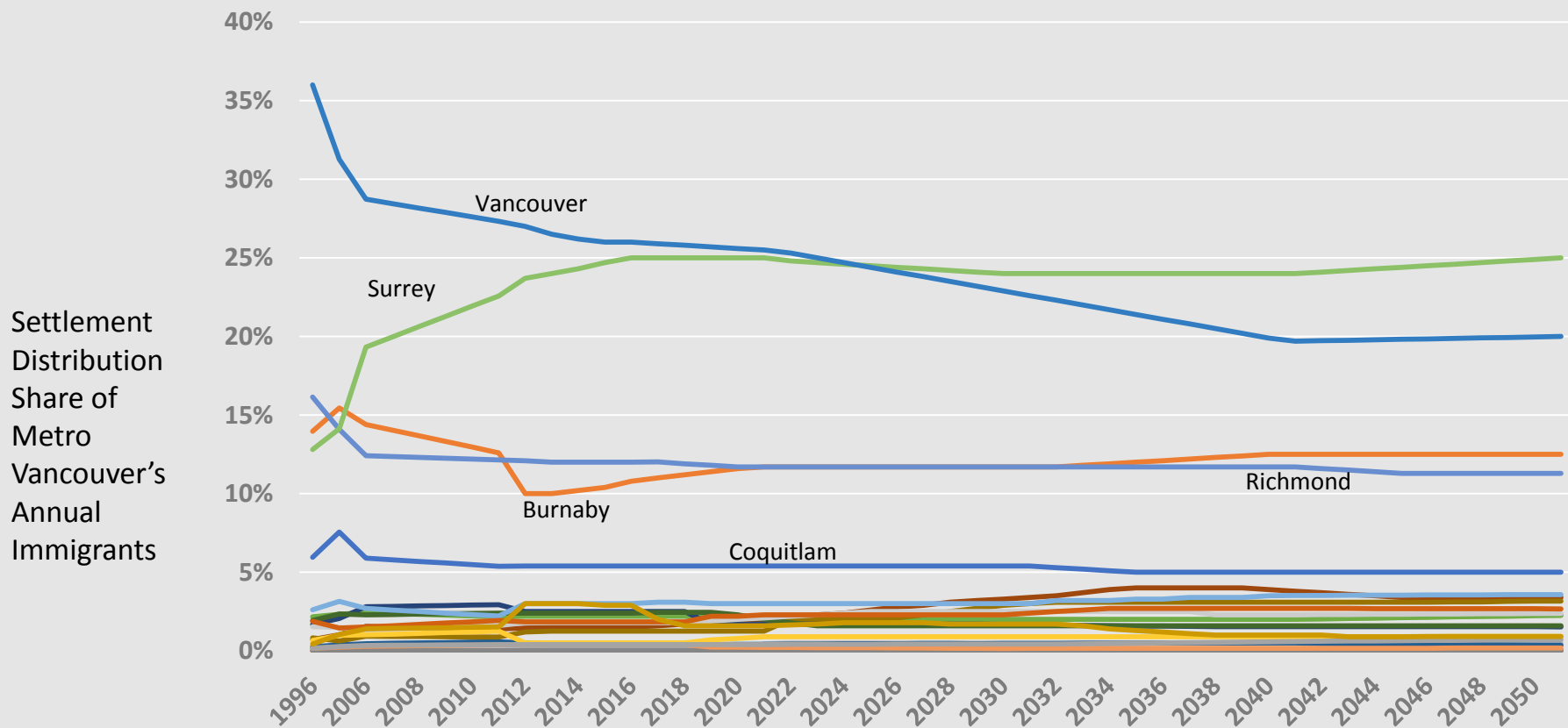


Immigration – Regional Trends

Share of Annual
Permanent
Immigrants to
Canada



Immigration - Municipal Distribution



Domestic Migration

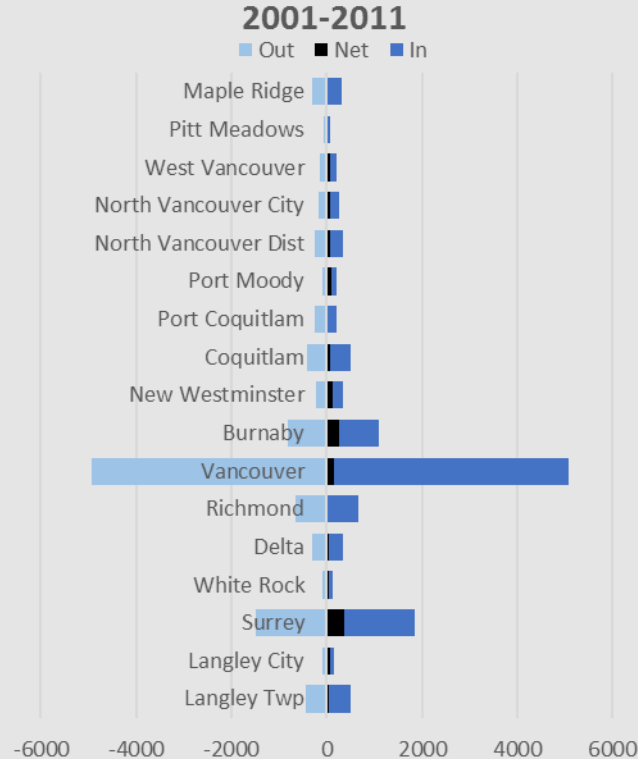
Inter-Provincial

- Average net annual regional inflow +2,500 and relatively stable through the projection horizons

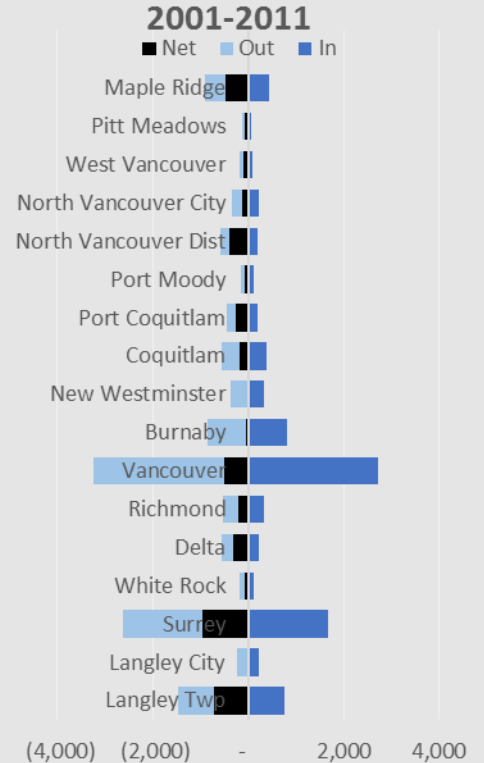
Intra-Provincial

- Average net annual regional outflow -4,000 and increasing through the projection horizons

Annual Inter-Provincial Migration



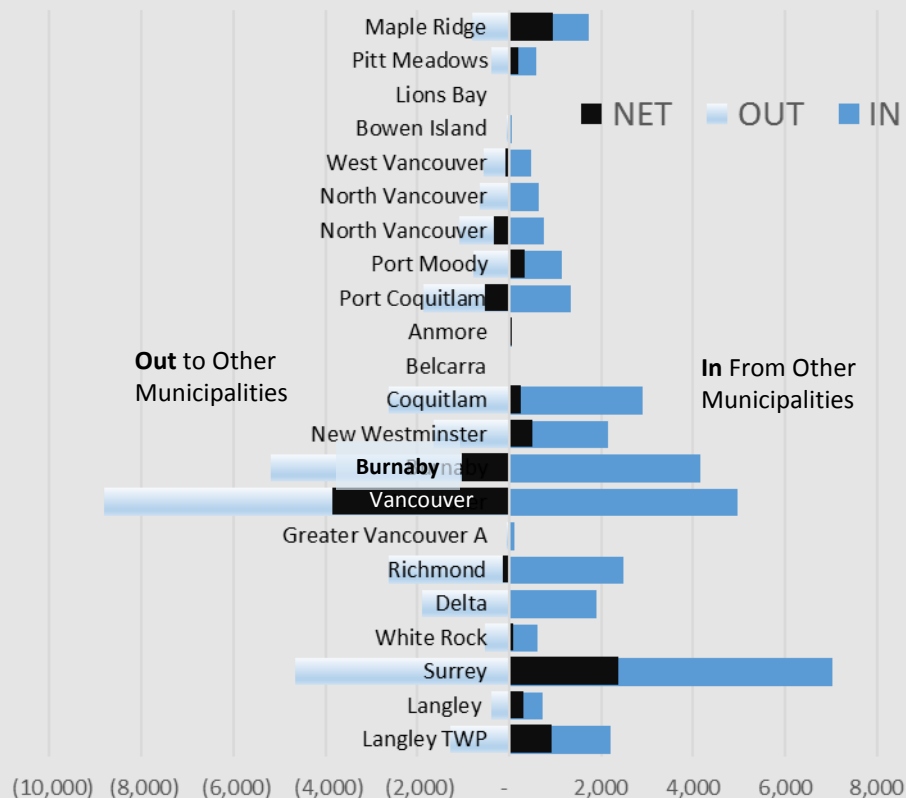
Annual Intra-Provincial Migration



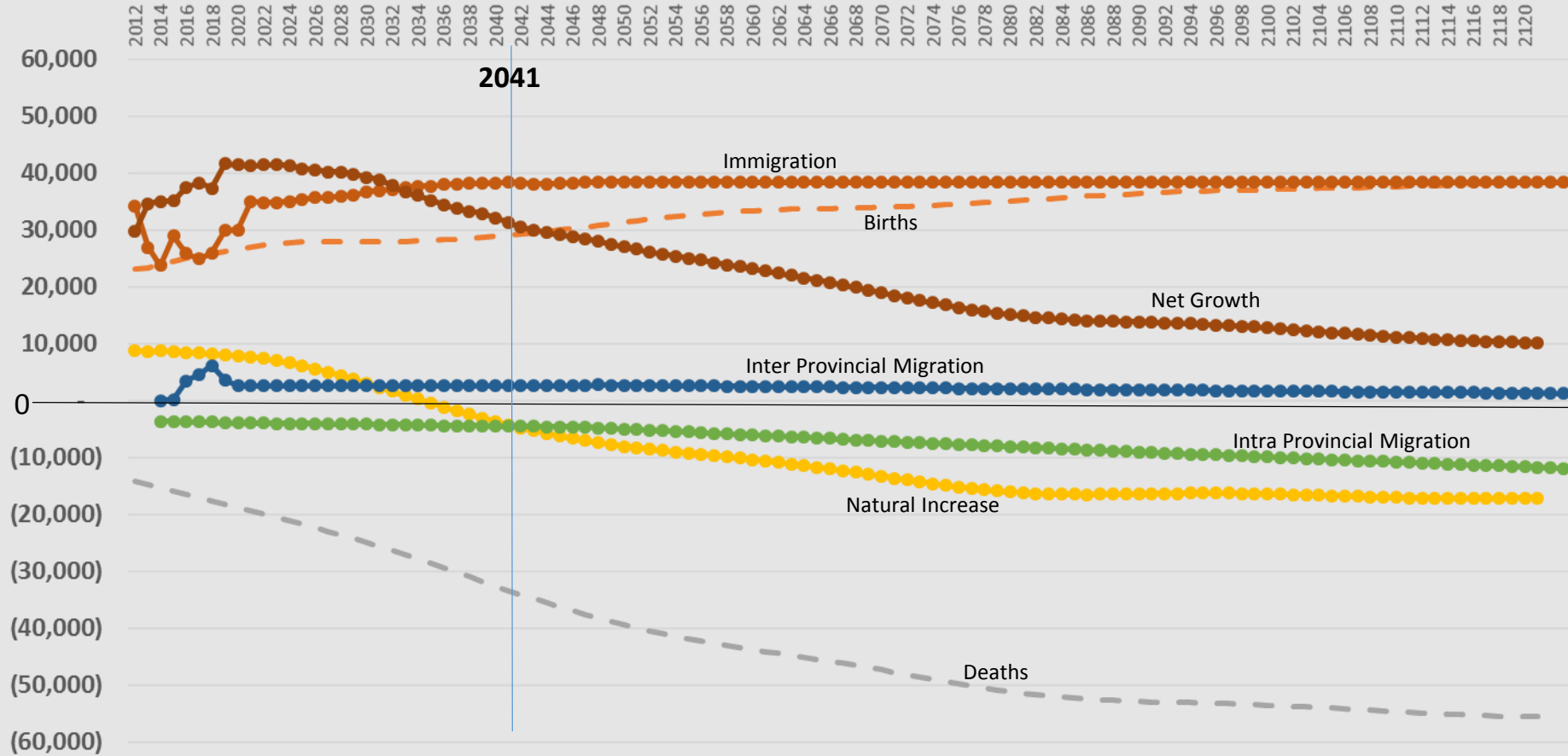
Inter-Municipal Migration

- Trends 2001 – 2011 establish baseline reference
- Assume this general pattern continues through the projection horizons

Inter-Municipal Migration Annual Average 2001- 2011

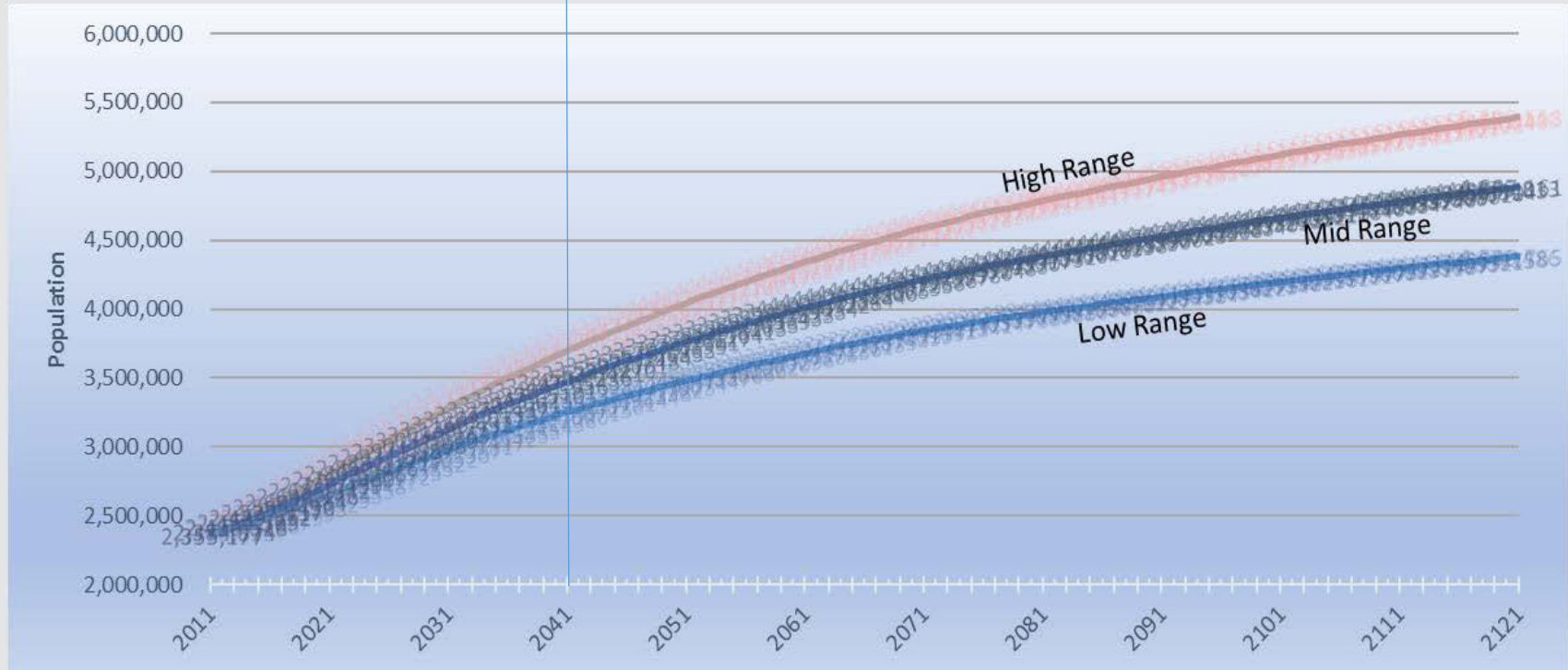


Components of Metro Population Growth

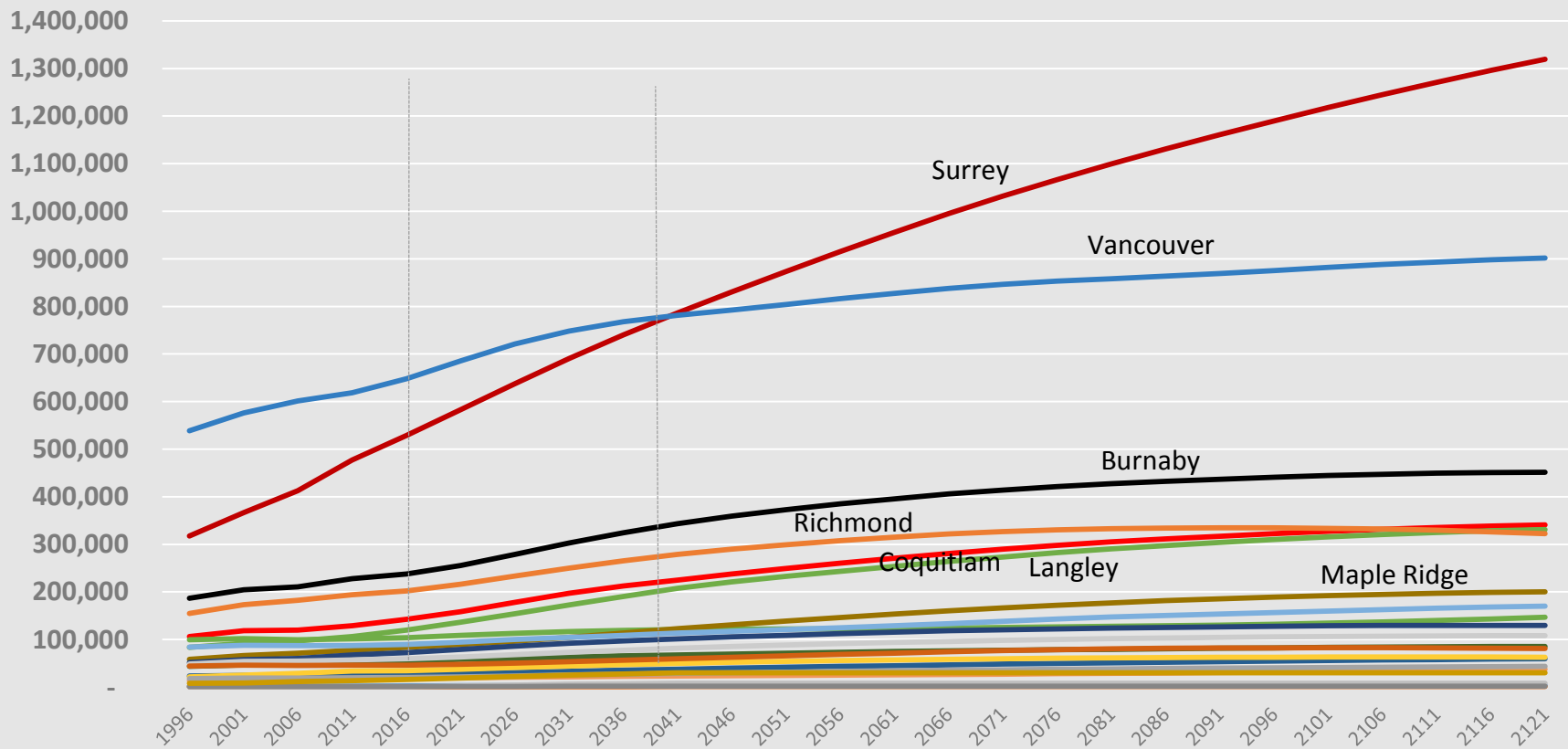


Draft Base Scenario - Metro Population Projections

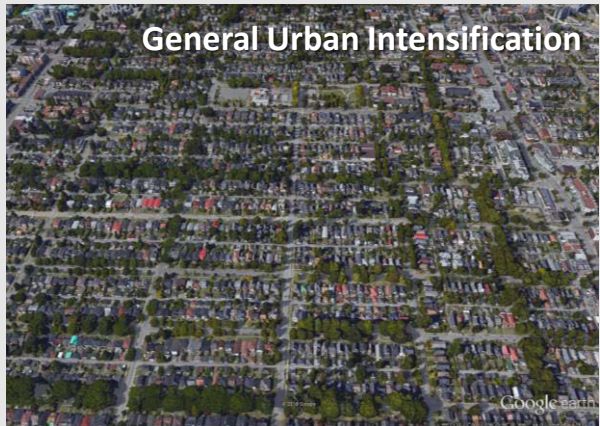
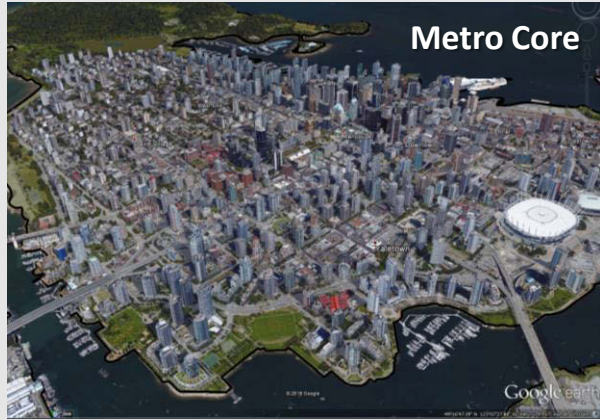
	2011	2016	2041	2081	2121
Population	2,355,000	2,512,000	3,450,000	4,400,000	4,800,000



Subregional Population Projections 2041+



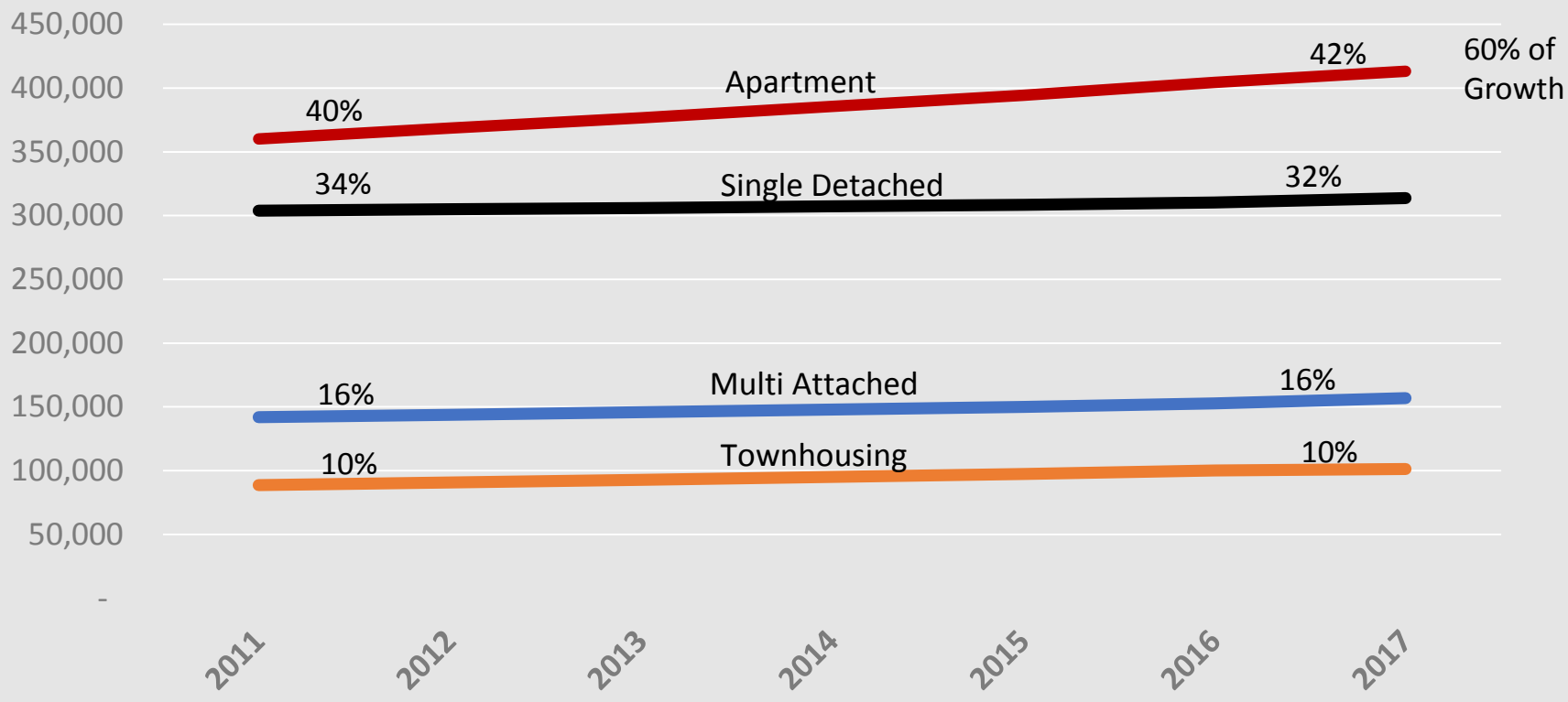
Housing and Land Use / Capacity



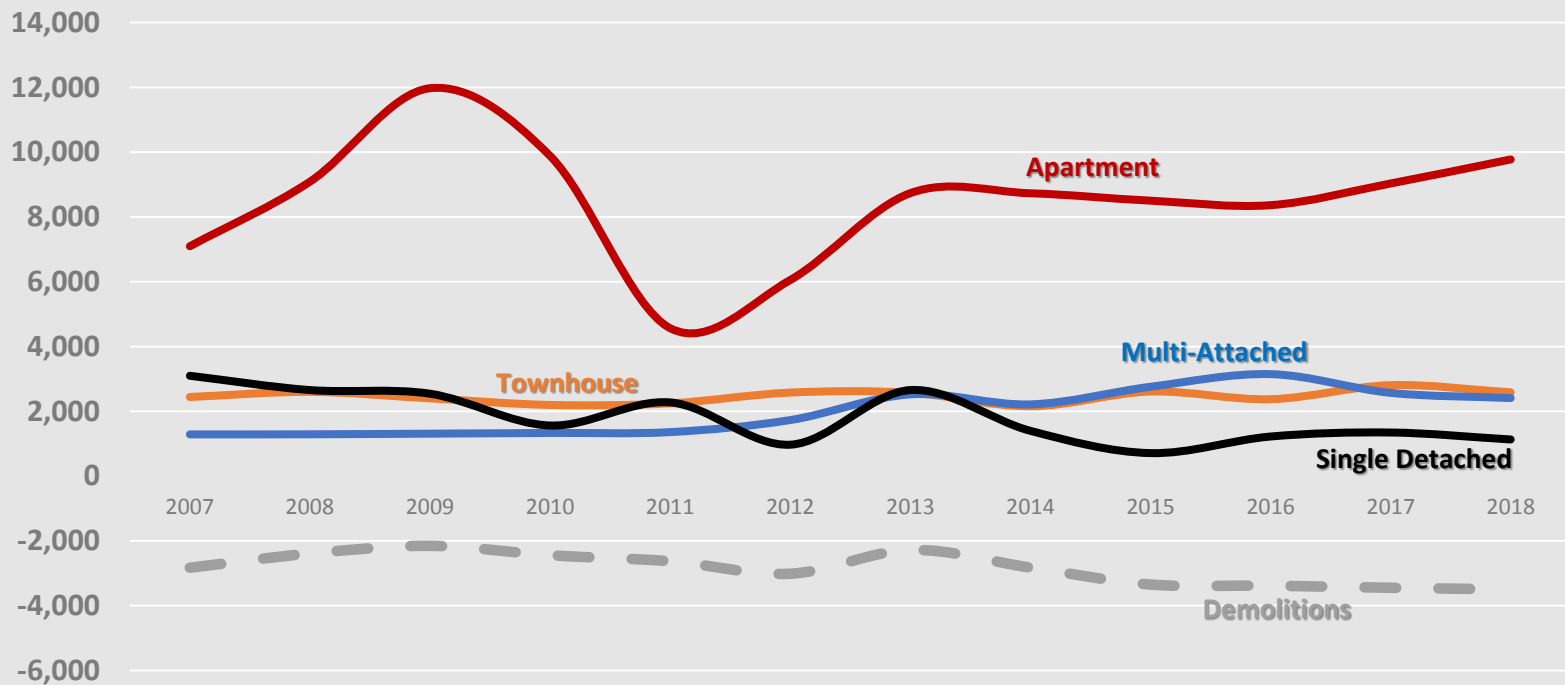
Housing – Current Baseline / Trends

900,000 Dwelling Units in 2011

970,000 Dwelling Units in 2016



Monitoring Housing Completions / Demolitions



Metro 2040 Regional Growth Concept

Regional Targets for Percentage of Dwelling Unit Growth 2011-2041

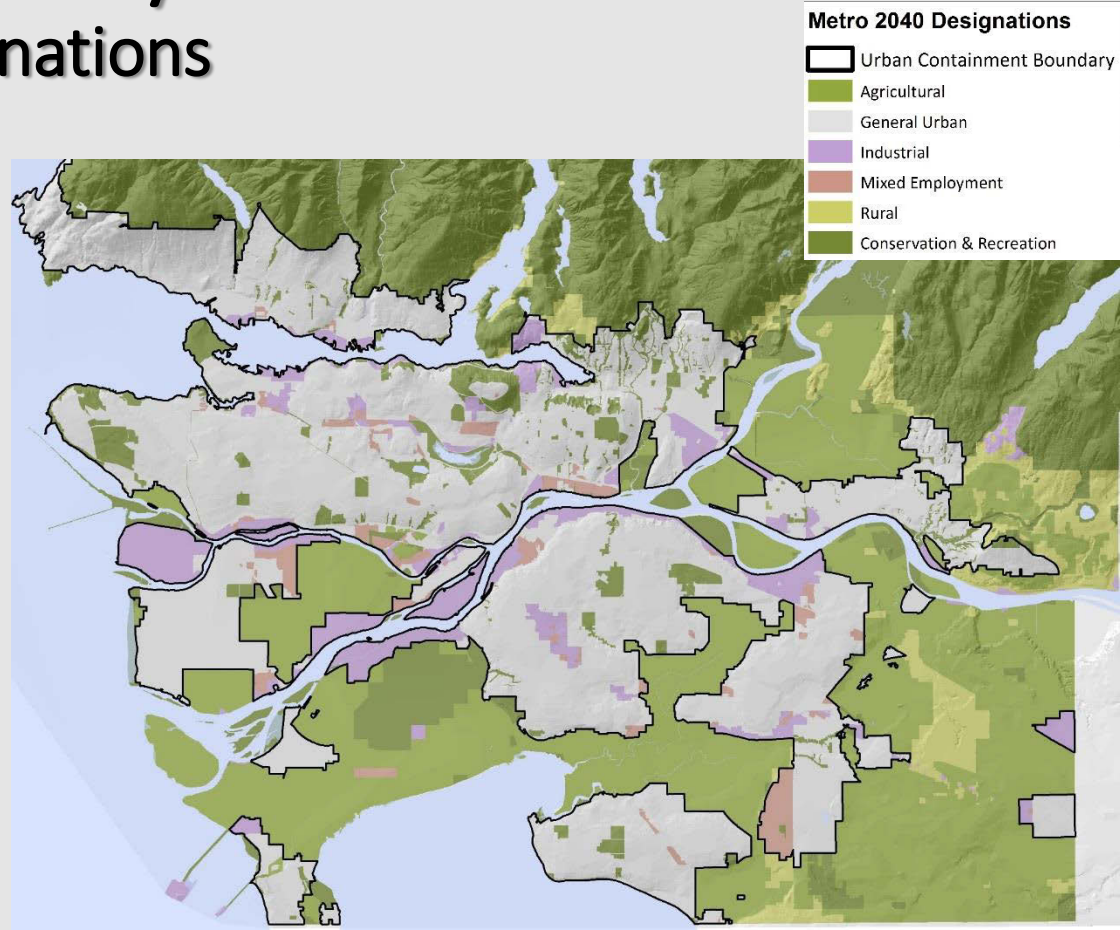


	Residential	Employment
Urban Centres	40%	50%
Transit Stations /Corridors	28%	27%
General Urban	31%	24%
Other	1%	

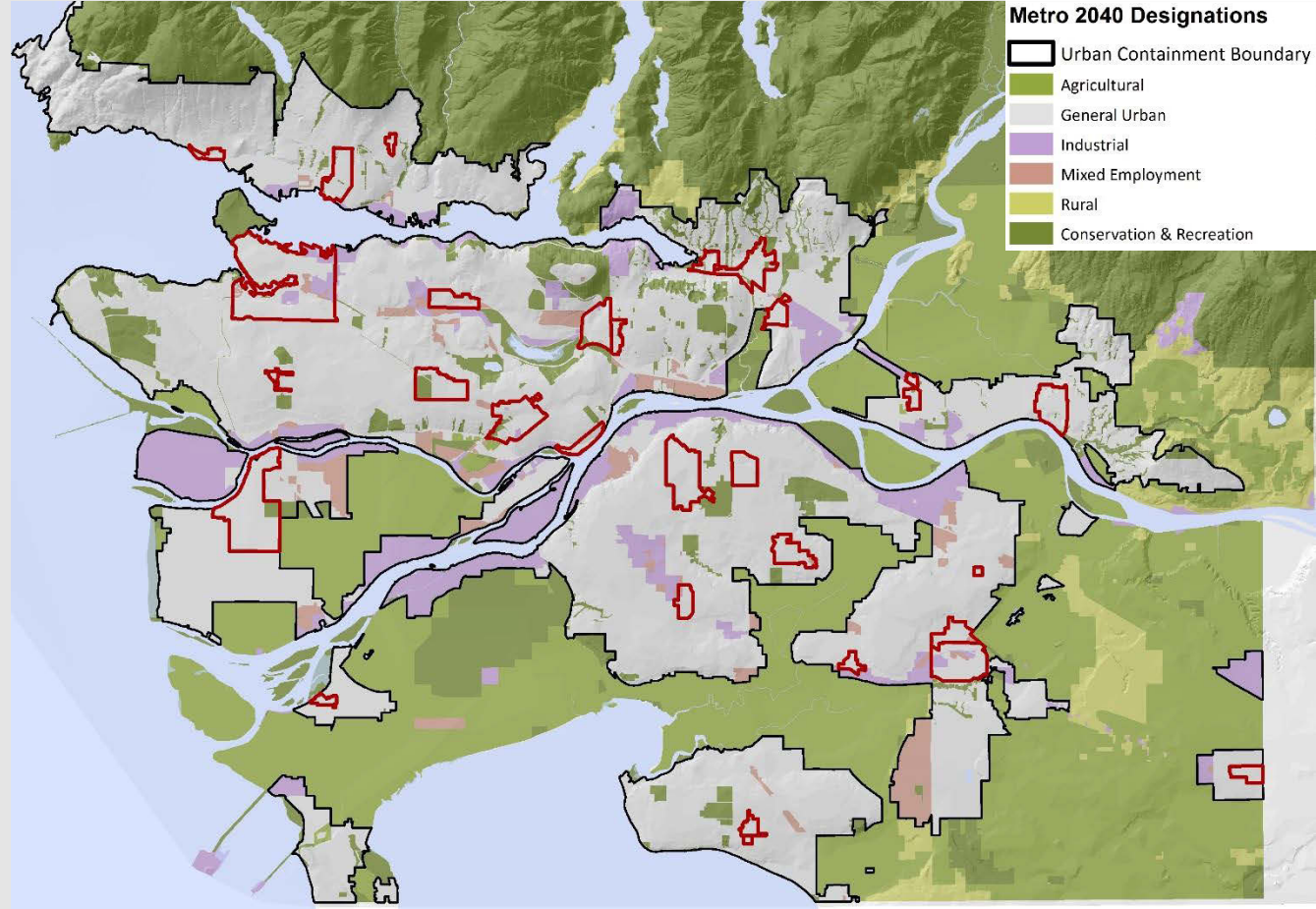
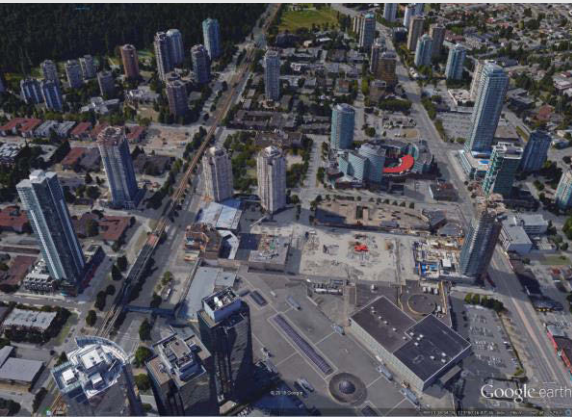
Regional Land Capacity

Metro 2040 Land Designations

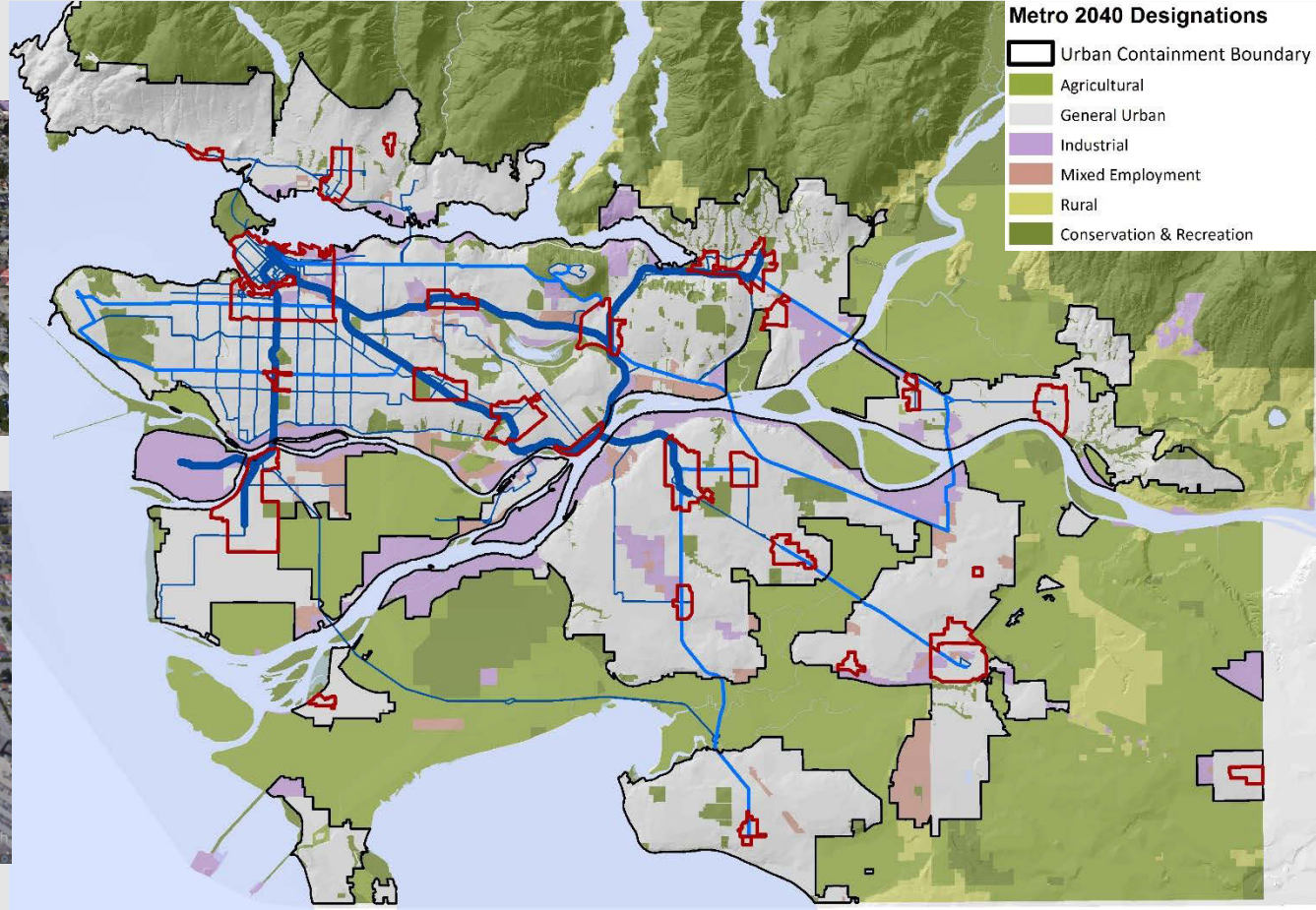
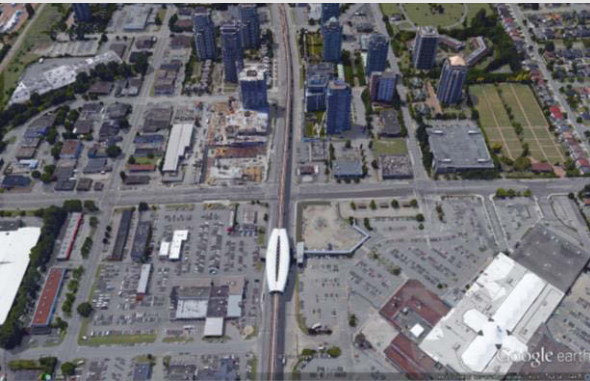
- Established *Metro 2040* land use designations assumed static –some minor amendments
- Net Urban land = 43,000 ha
- Assume land base, market and politics will accommodate projected development densities



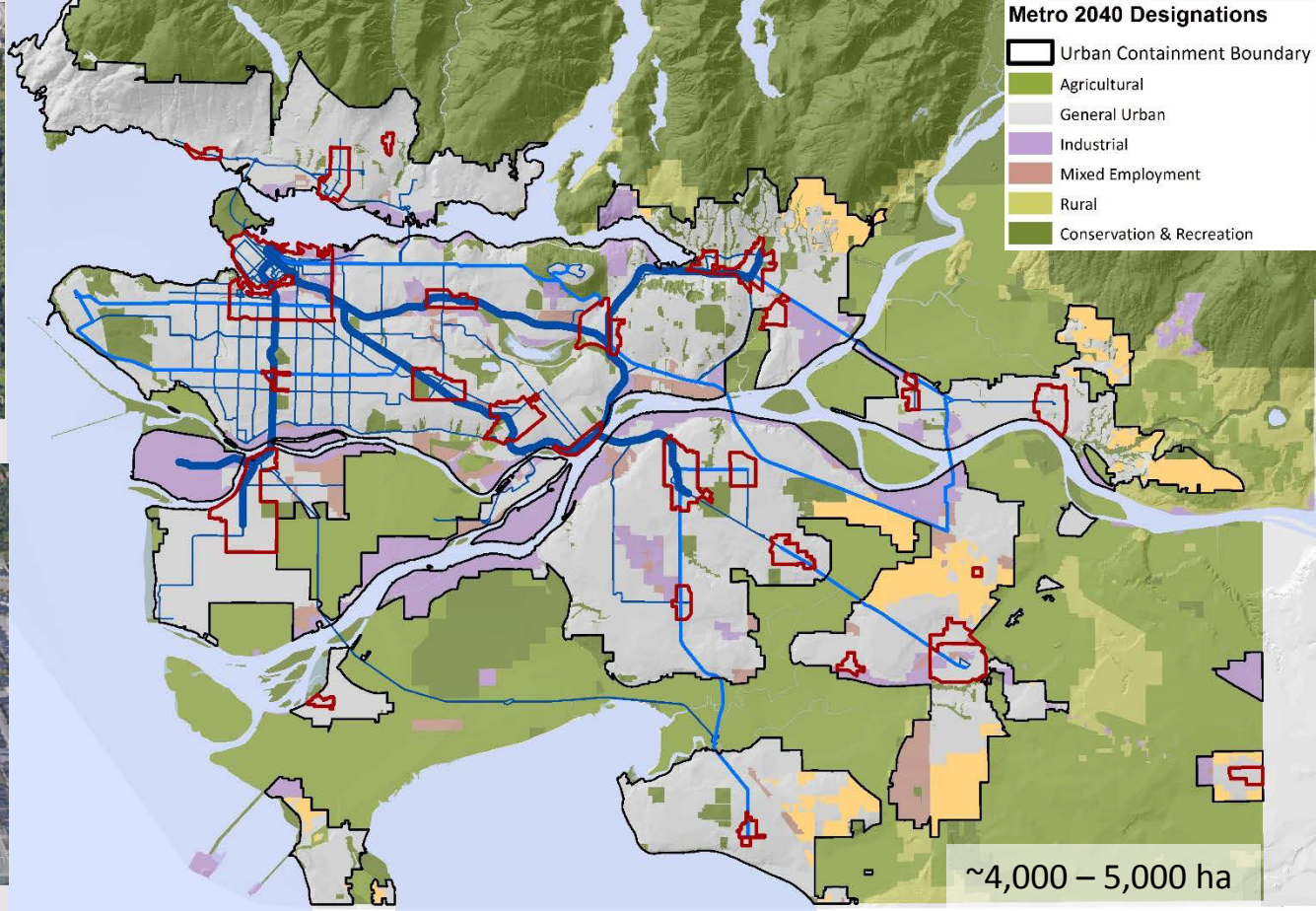
Urban Centres



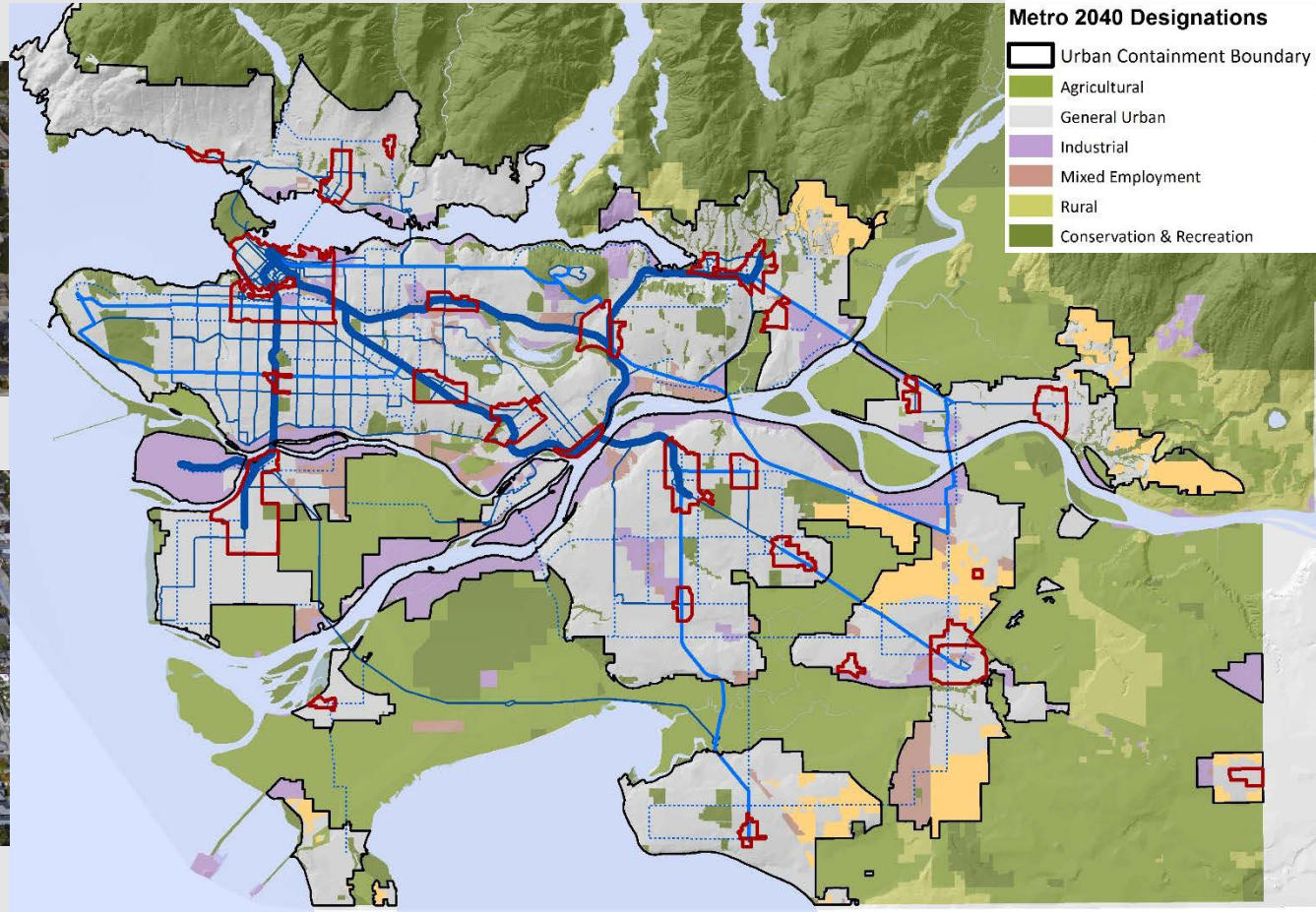
Frequent Transit Corridor Network



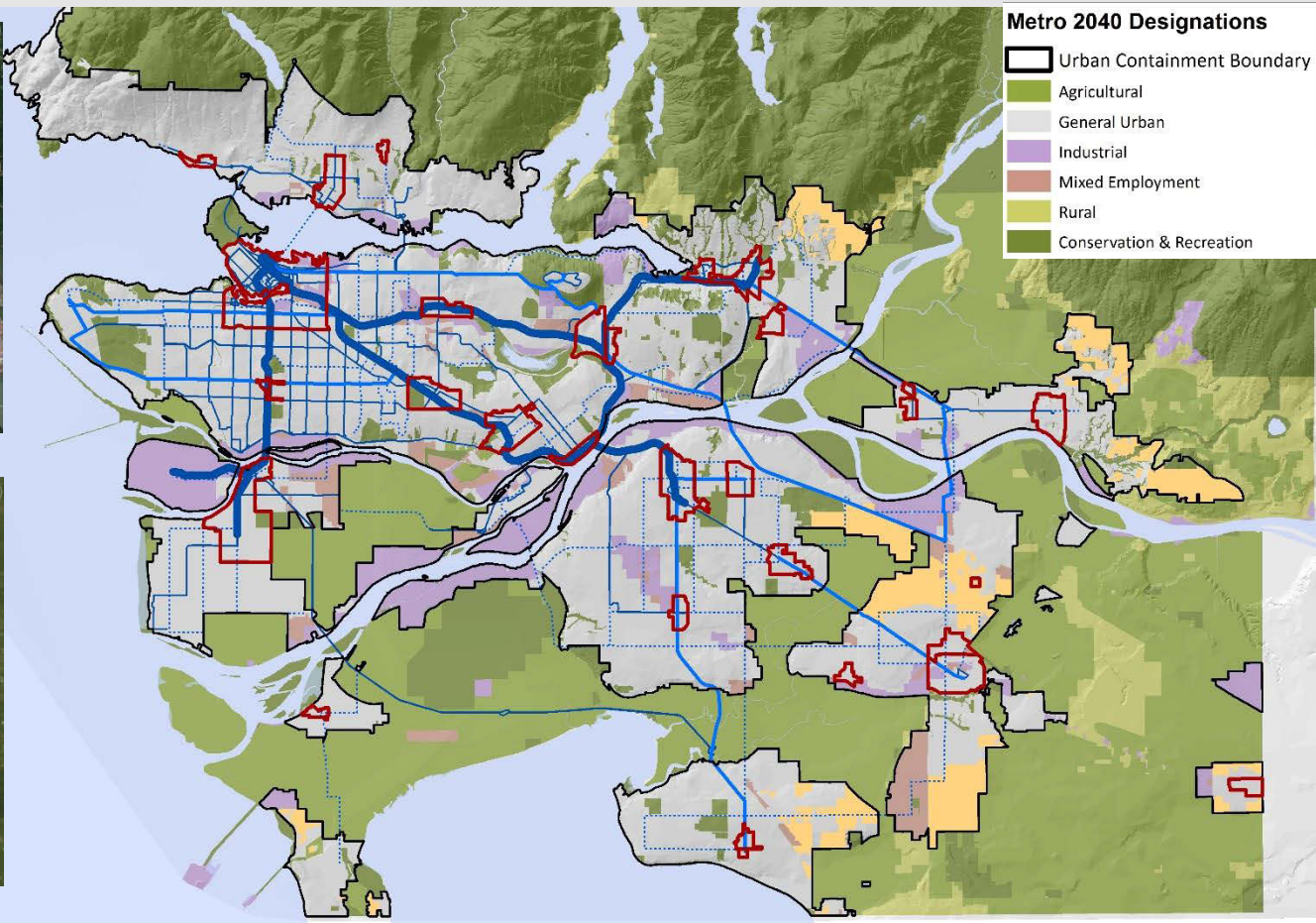
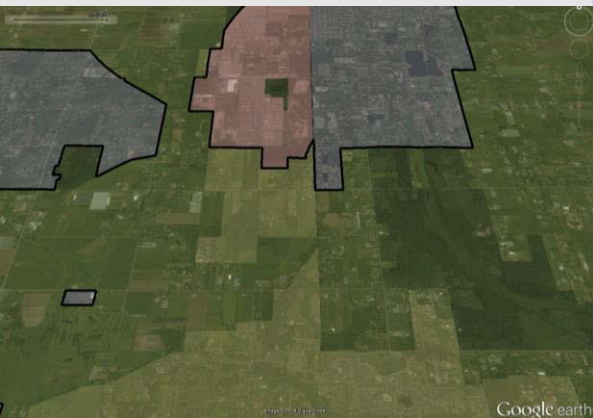
Remaining Undeveloped Urban Lands



General Urban Densification

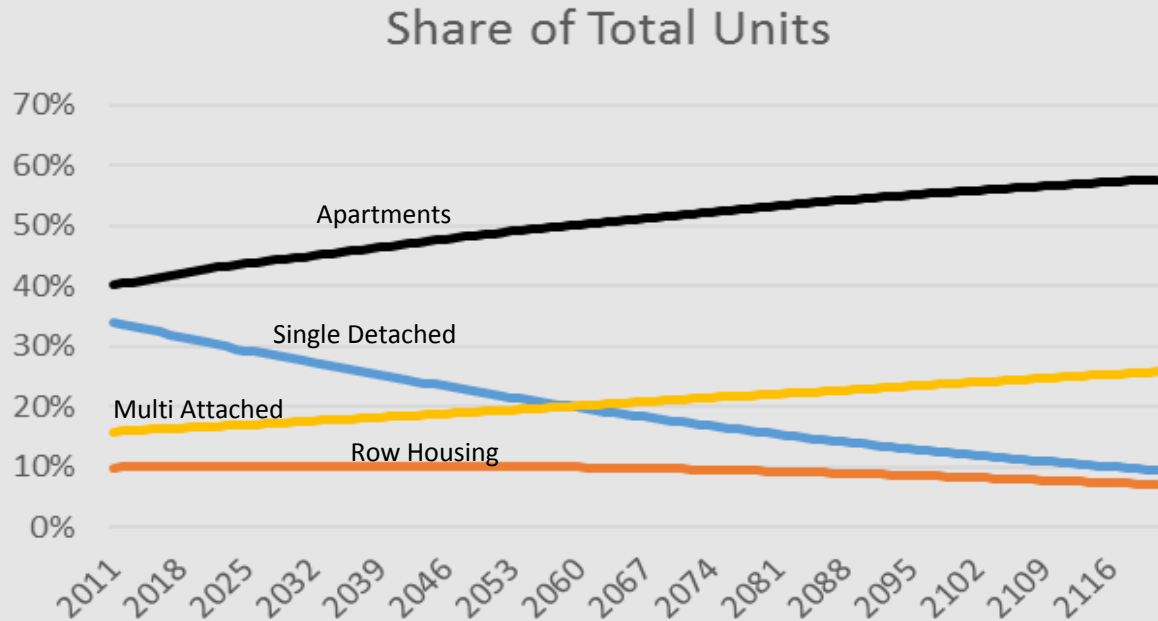


Rural and Agricultural Areas



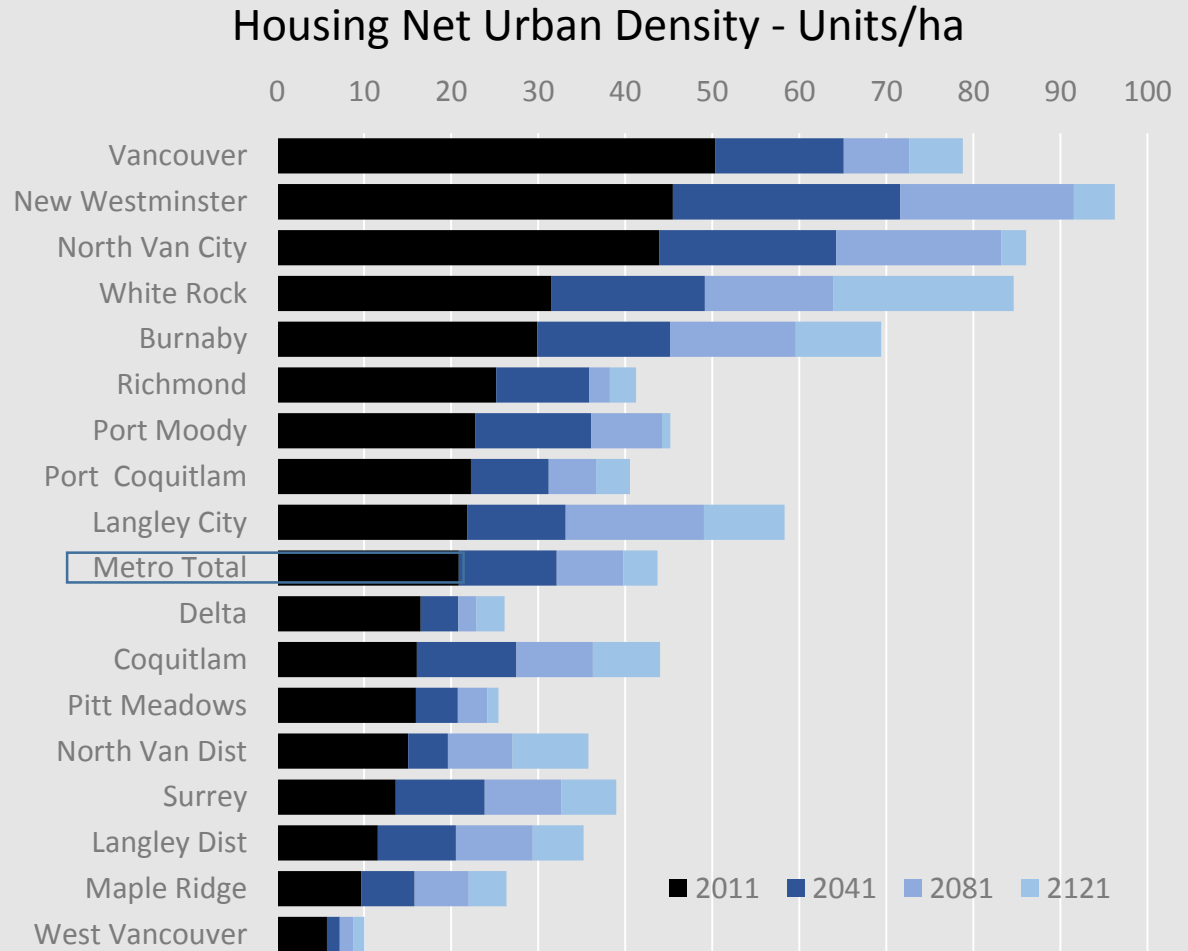
Baseline Scenario - Projected Housing Stock

	2011	2016	2041	2121
Units	897,000	970,000	1,420,000	2,000,000



Housing and Land Use

Density Projections

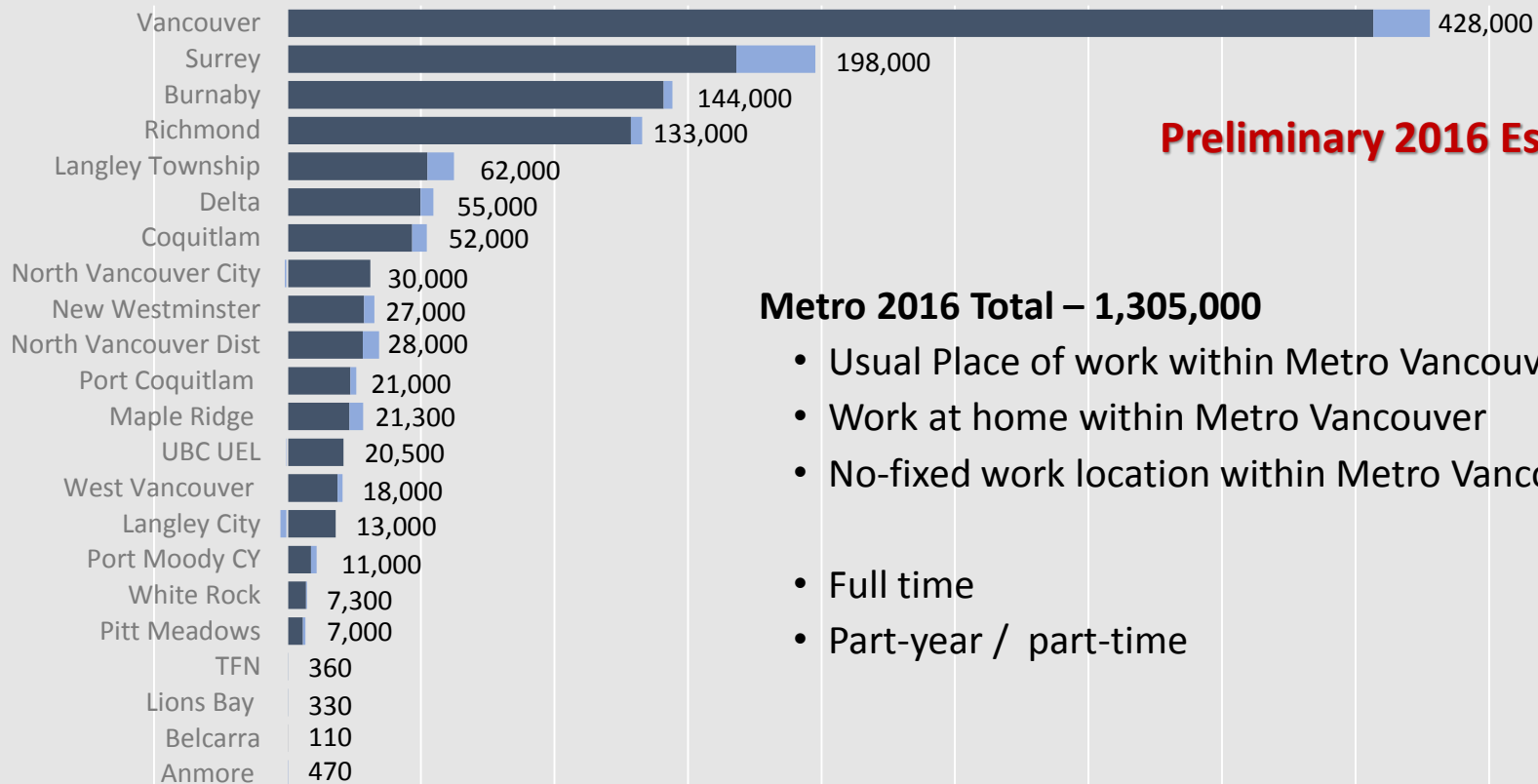


Baseline Scenario - Employment Projections

- Census benchmark employment totals, trends and indicators
- Employment projections are a function of sectoral trends in the regional economy/employment and regional population / labour force



Employment by Municipality 2011- 2016

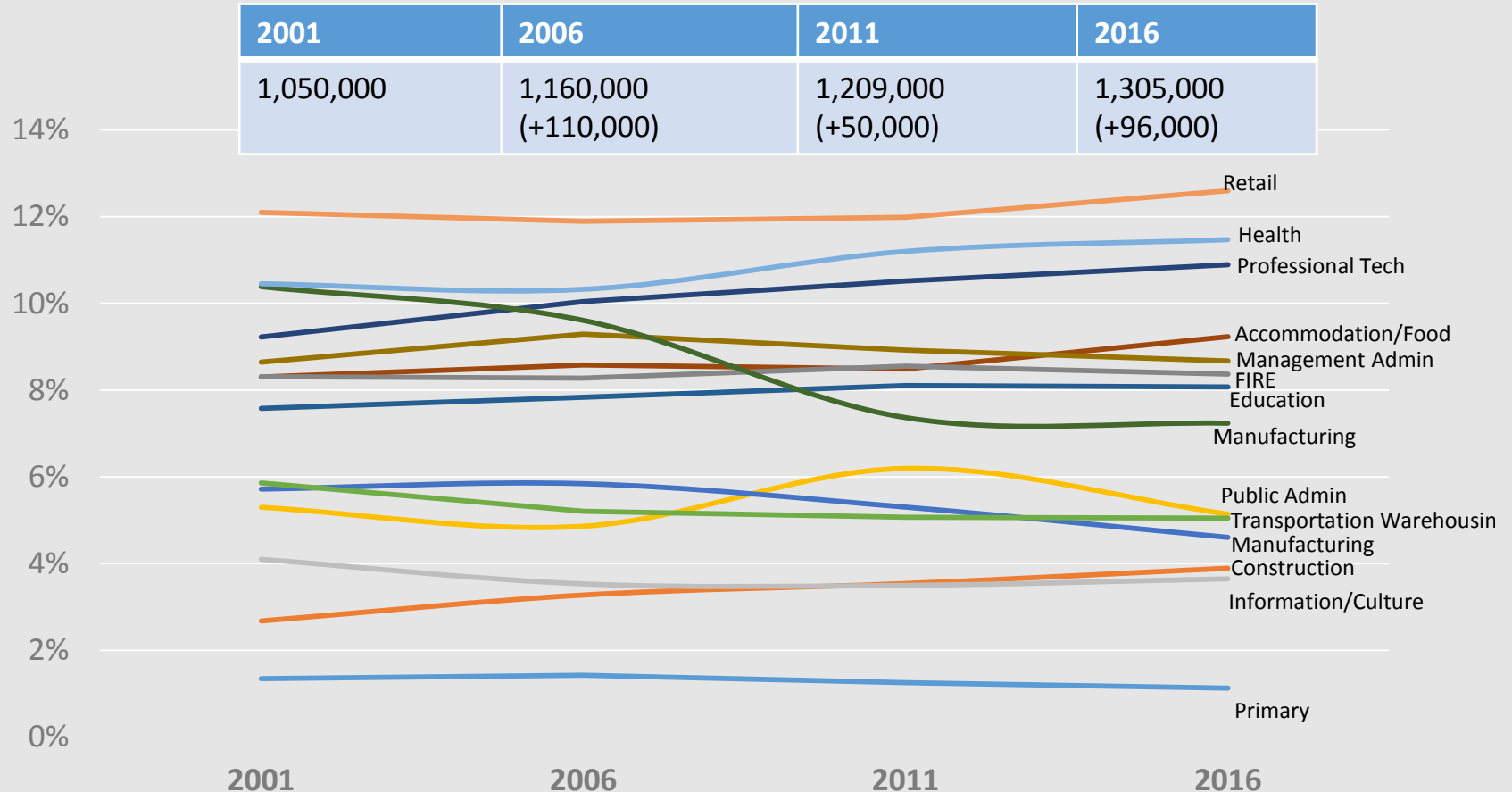


Preliminary 2016 Estimates

Metro 2016 Total – 1,305,000

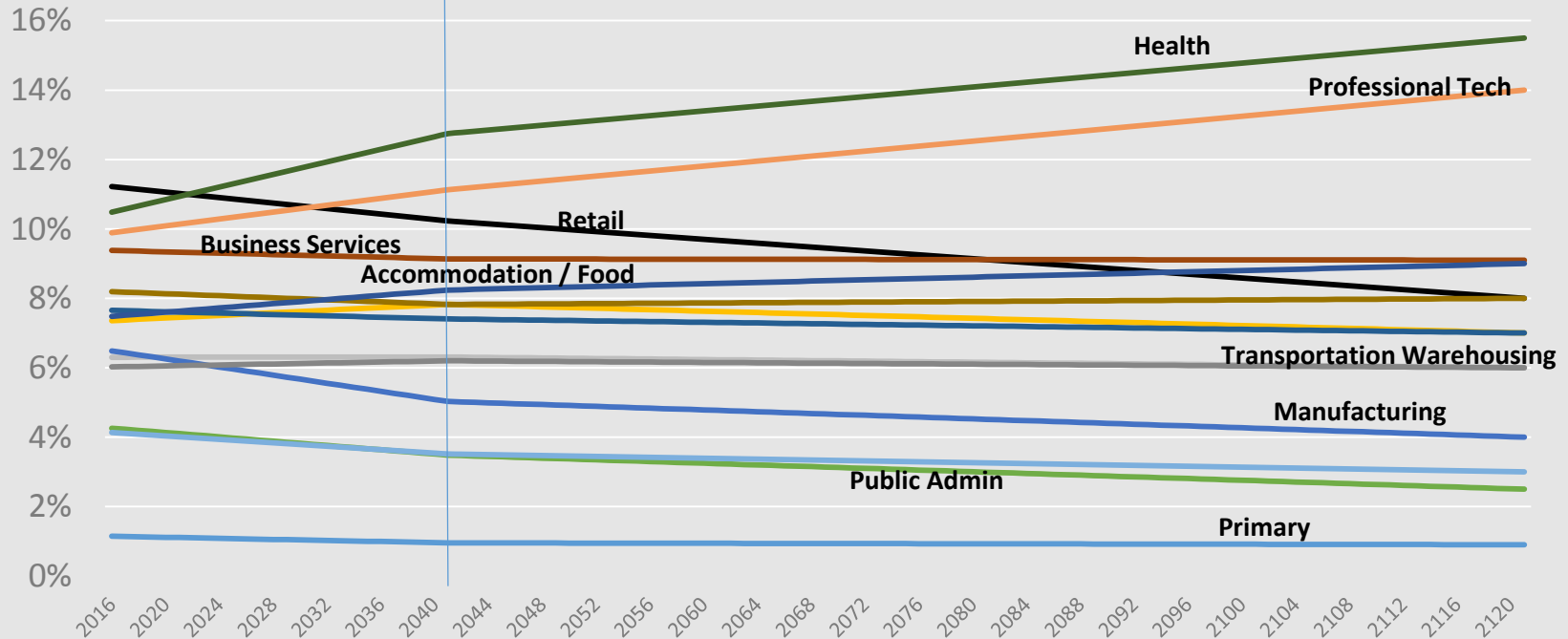
- Usual Place of work within Metro Vancouver
- Work at home within Metro Vancouver
- No-fixed work location within Metro Vancouver
- Full time
- Part-year / part-time

Metro Employment Trends by Industry Sector



Projected Metro Employment by Industry Sector

2016	2041	2081	2121
1,305,000	1,725,000	1,950,000	2,150,000



Municipal Projection Allocation Process

Population Related Employment Growth

- Share of regional sector growth allocated based on municipal share of regional population growth

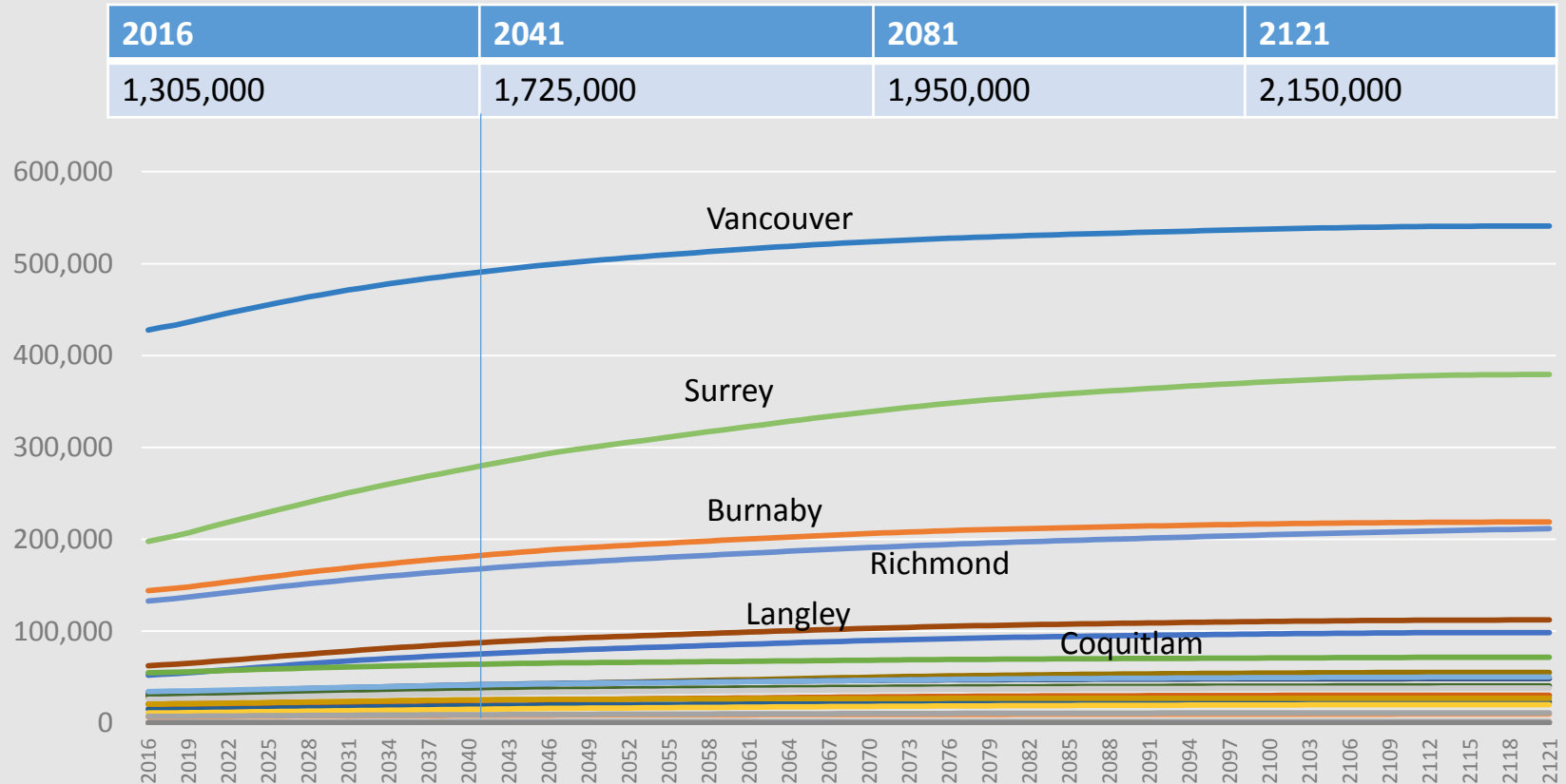


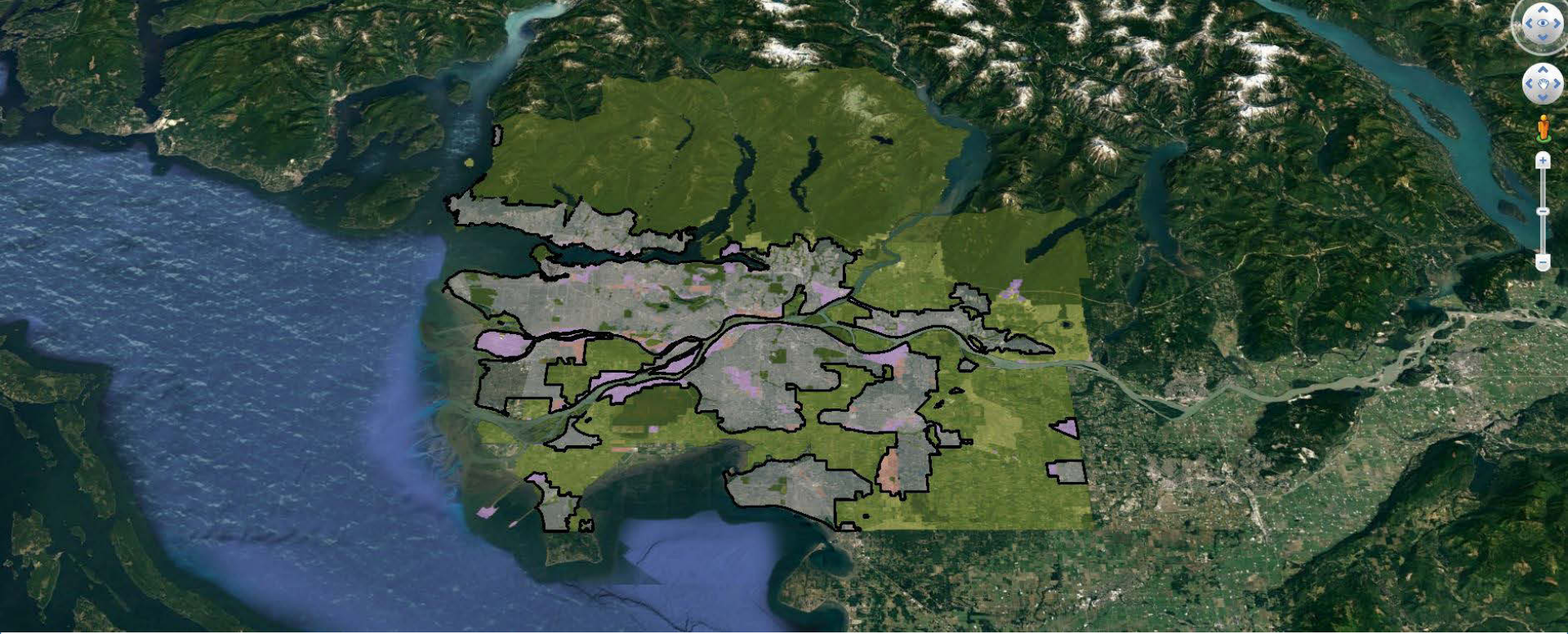
Location Related Employment Growth

- Share of regional sector growth allocated based on current municipal share of sector jobs



Baseline Scenario - Projected Municipal Employment



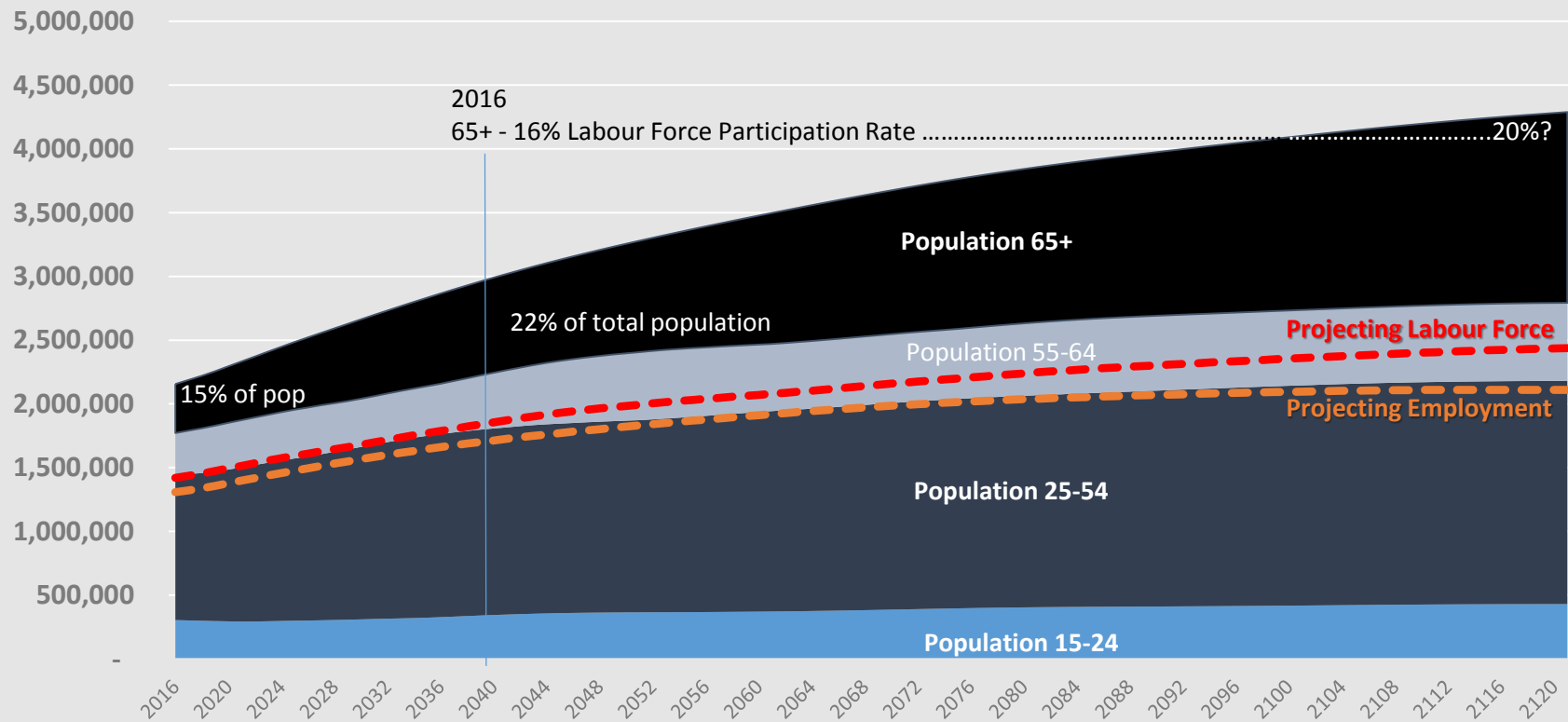


Metro Vancouver Growth Projections

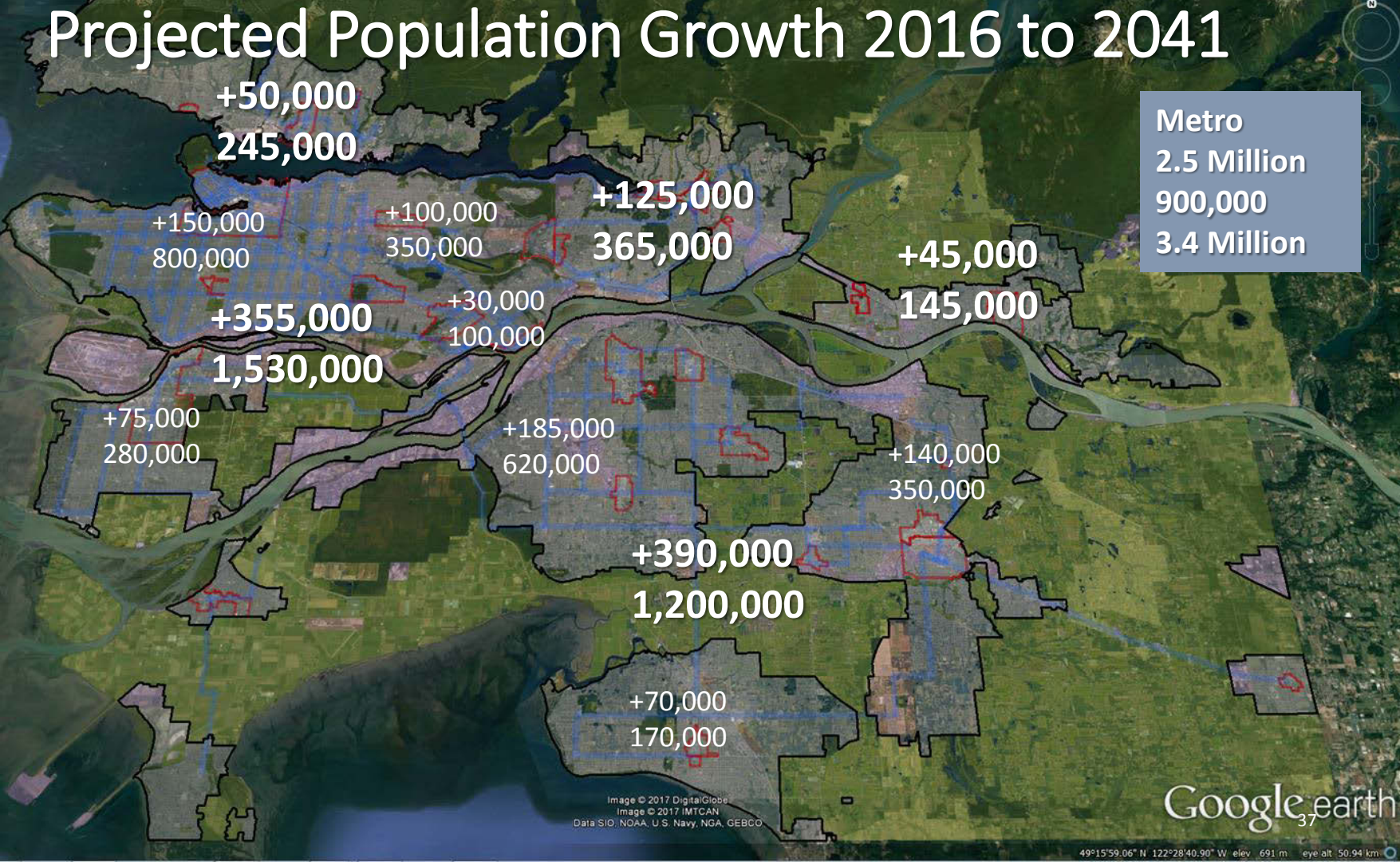


metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

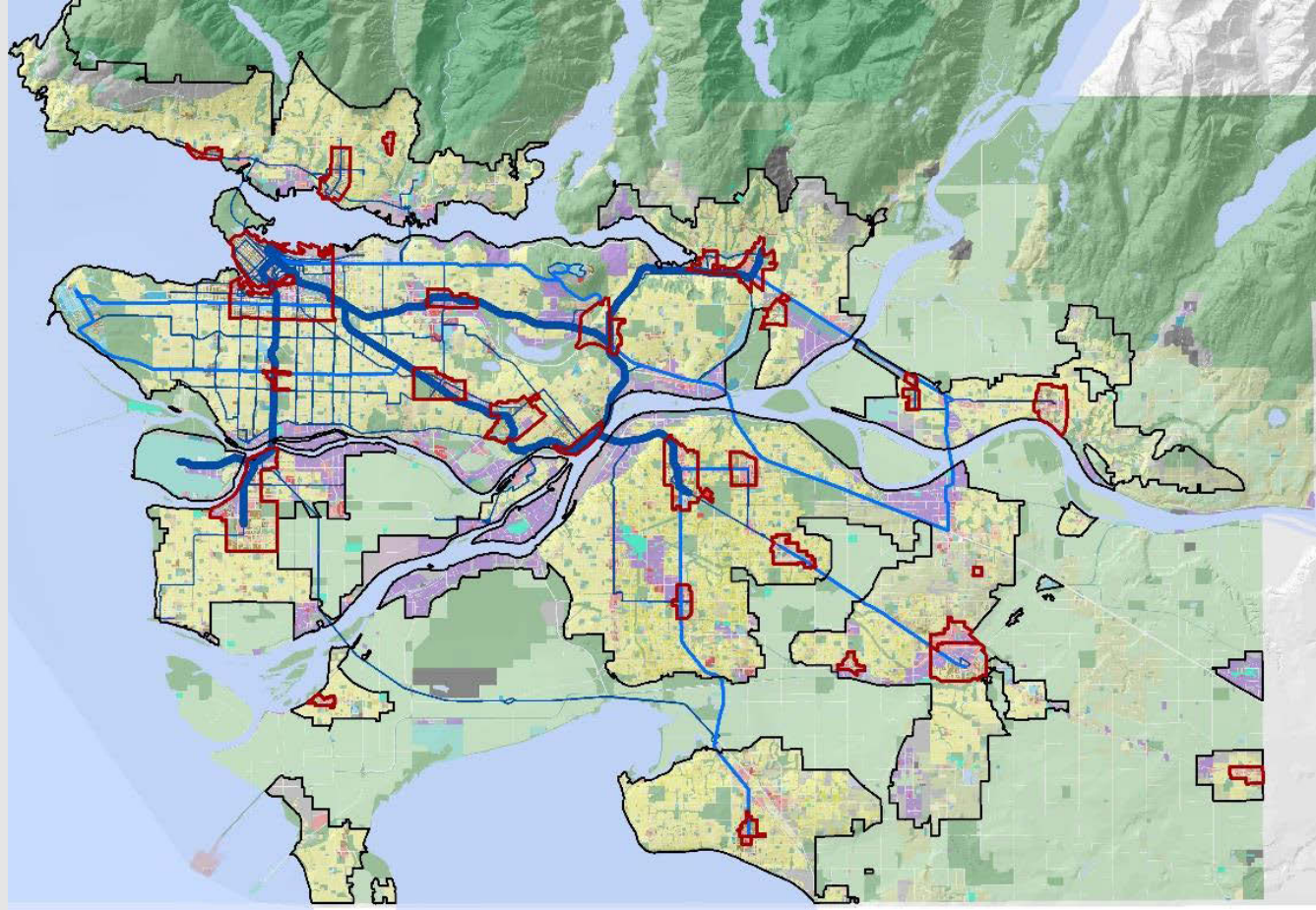
Population and Labour Force



Projected Population Growth 2016 to 2041

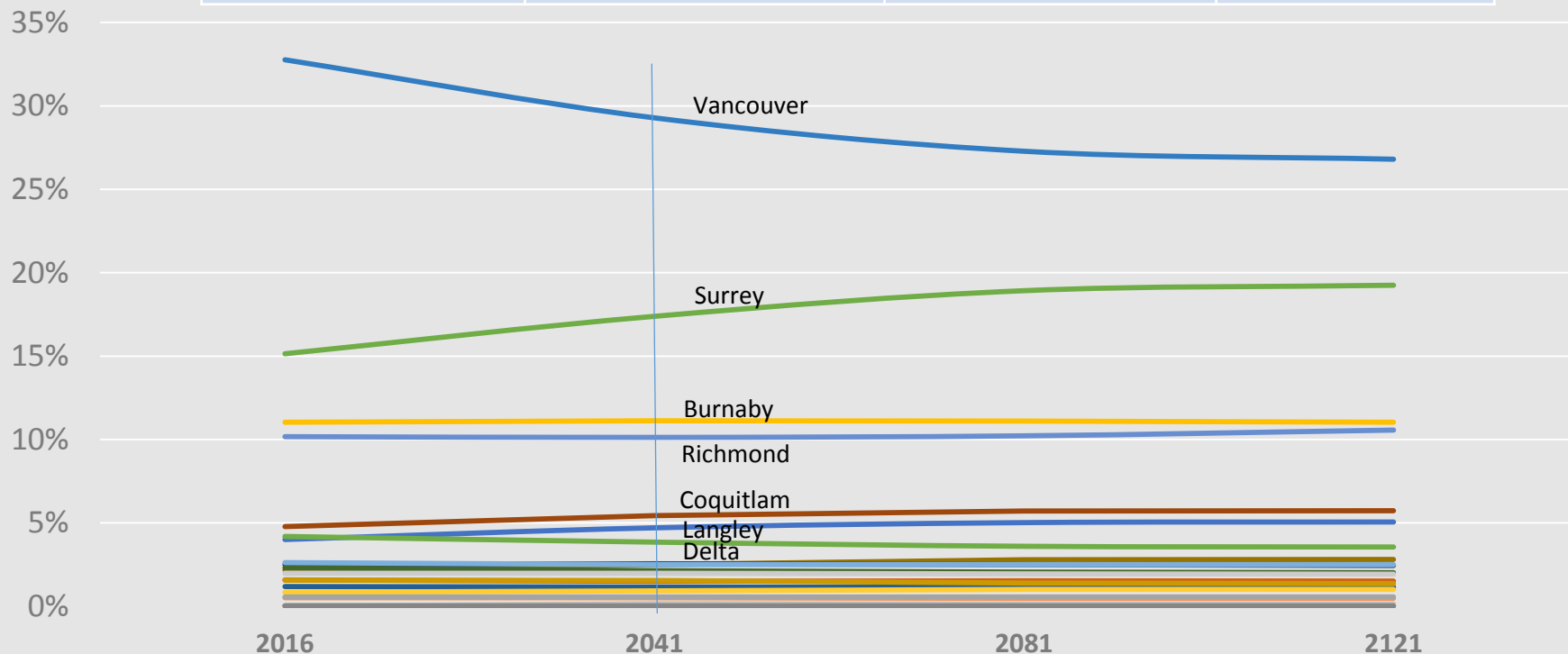


Current Land Use



Baseline Scenario - Projected Municipal Employment

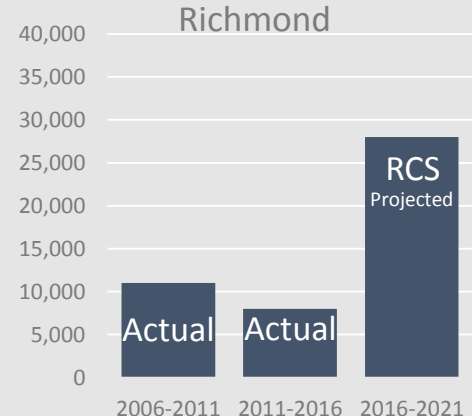
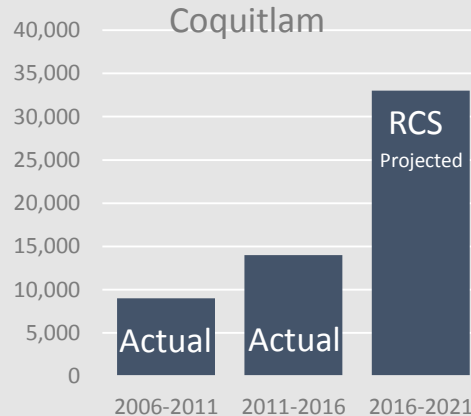
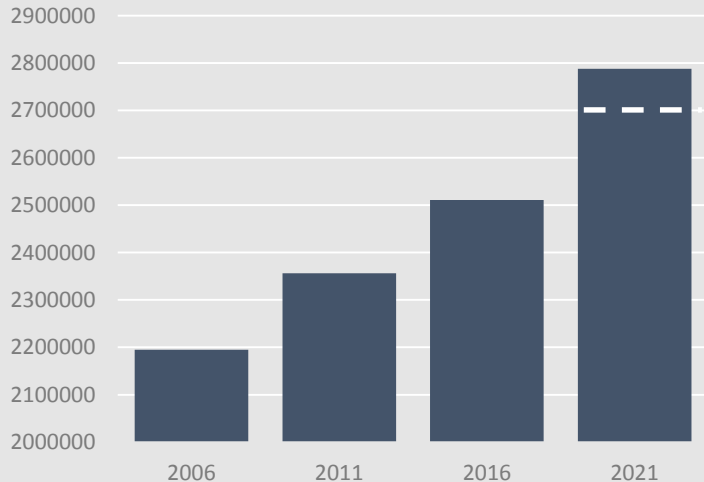
2016	2041	2081	2121
1,305,000	1,725,000	1,950,000	2,150,000



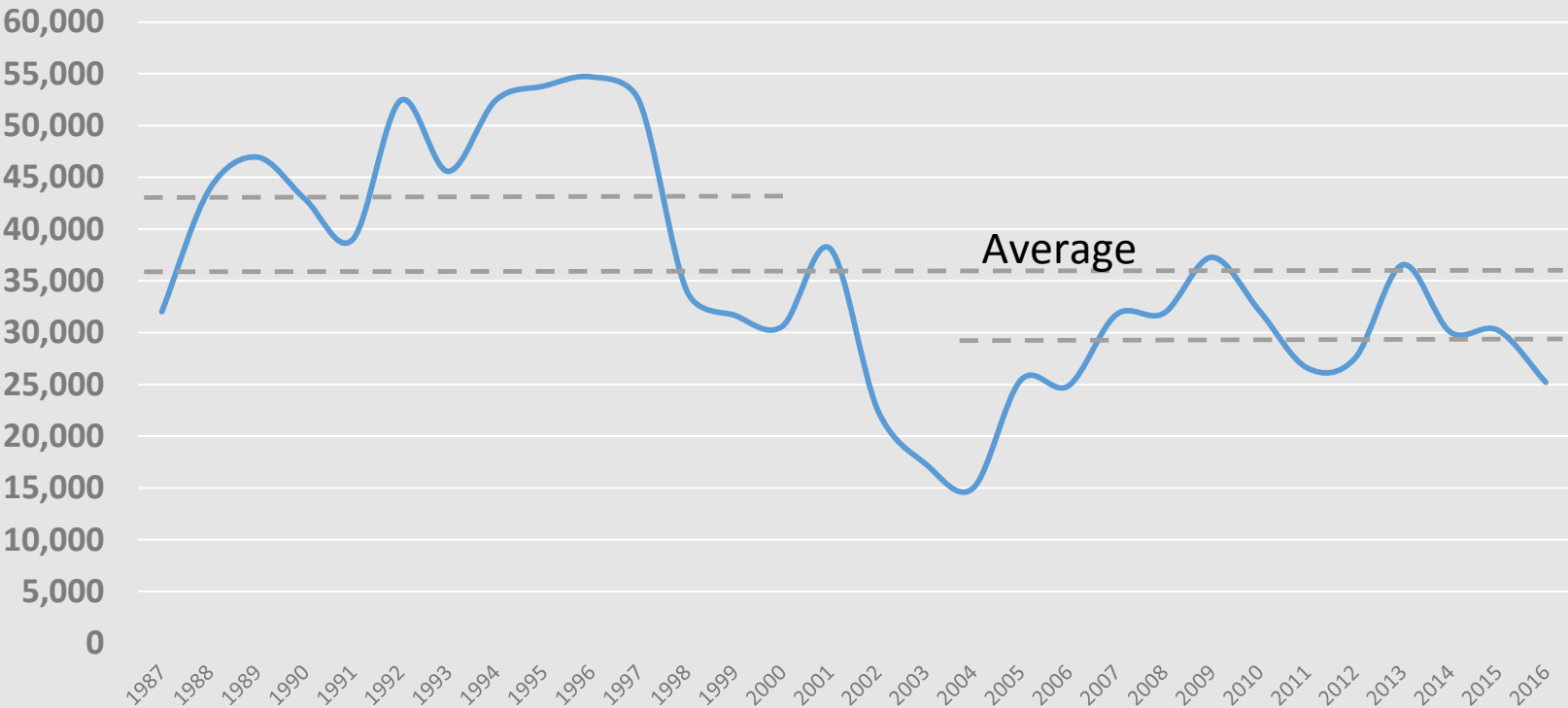
Monitoring and Updating

Reconcile Population Projections with Benchmark Monitoring

- 2016 Census results and current demographics indicate regional growth projections in lower range for 2016-2021 period
- Review and potential revision of Metro 2040 / RCS projections



Metro Vancouver's Historic Population Growth



Scenarios Approach

Trends Forward

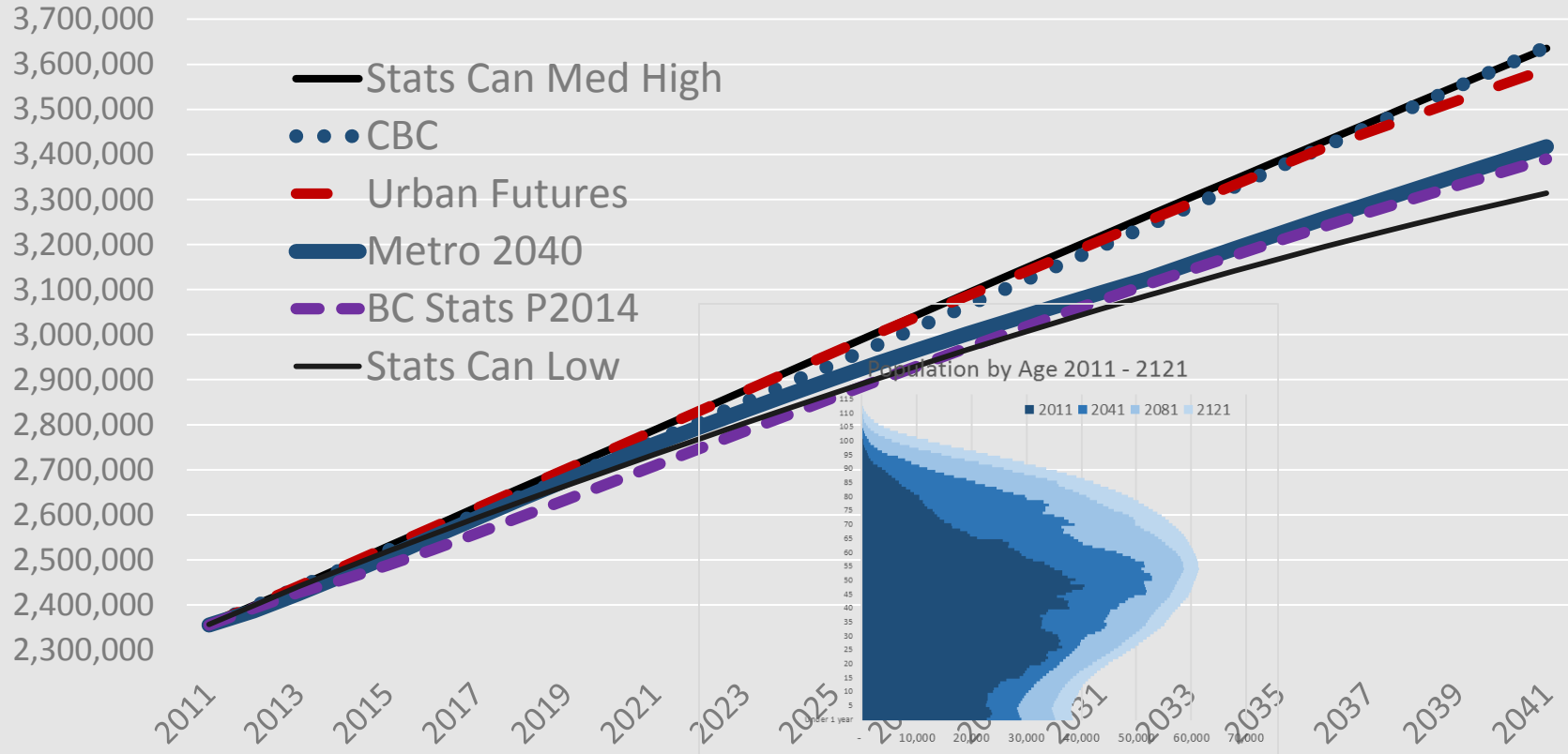
- Metro 2040 goals and strategies
- Contextual factors are resilient and relatively stable
- Includes trending of primary and contextual factors
- Includes a high - low range of variability
- Reference point for alternative assumptions

Alternative Assumptions

Context factors - potential affects on Trends

- Land capacity, saturation
- Transportation, transit service
- Economic activity and employment
- Environment – climate change impacts
- Political controls

Comparative Metro Projections



Municipal Population Projections

Regional and Municipal Collaboration

- Urban land base and current utilization
- Municipal plans and development potential
- Regional / subregional demographics and growth distribution trends
- Transit infrastructure / plans
- Local planning / development knowledge / consultation

Natural Increase

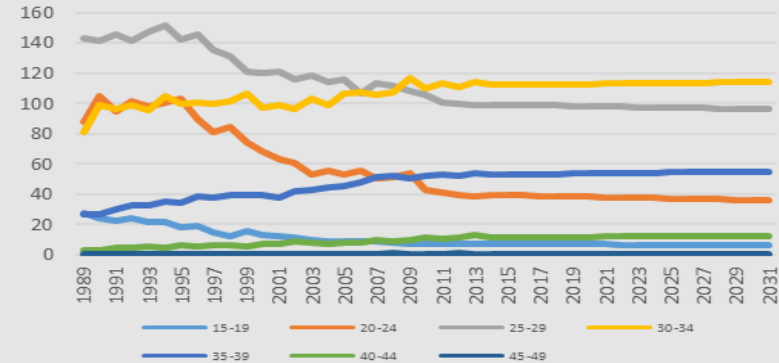
Births

- Fertility rates / trends and projections by population of women of child bearing age for each municipality
- Trends 1989-2014, projected toward stable rate 2021 – 2121

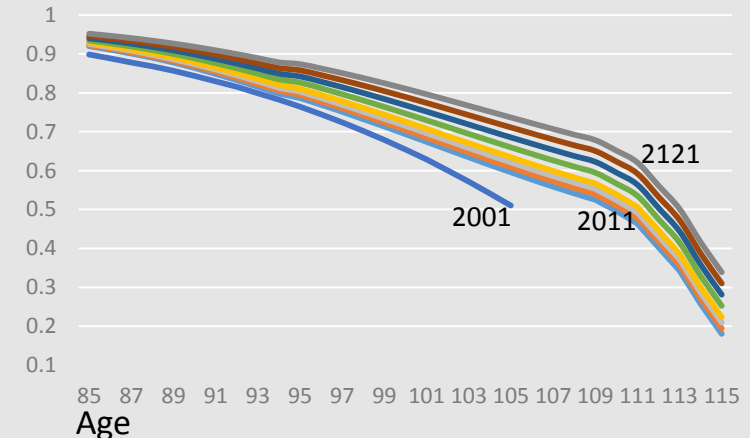
Deaths

- Survival rates / trends by single year of age from Stats Can lifetables by province
- Trends 2001-2015, projected toward marginal increases in longevity throughout projections

Births per 1,000 Women by Age Cohort



Survival Rates Age 85+



Baseline Scenario - Land Use and Capacity

- Current Land Use Profiles – 2016 General Land Use
- *Metro 2040* Land Designations / Strategies
- Municipal Land Use Plans – OCP, Local Areas
- Regional Transportation Strategy - Transit Concept
- Development and Density Assumptions

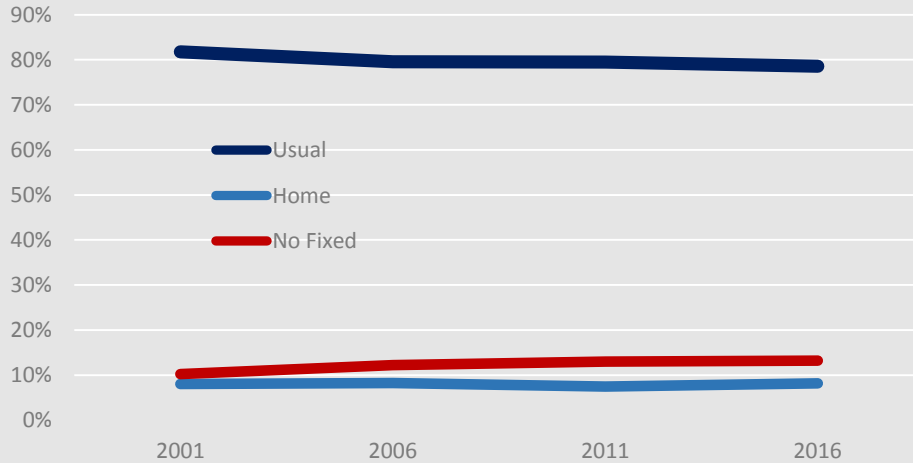
Baseline Scenario - Housing

Household formation / demand by dwelling structure type

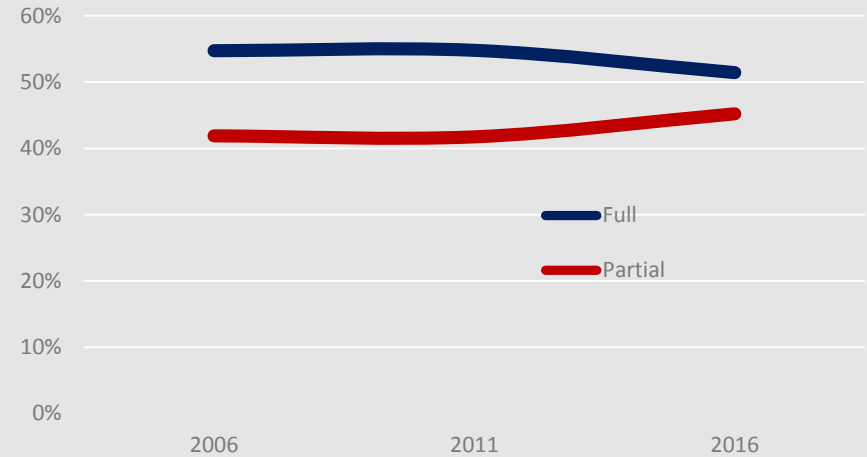
- Population projections for age cohorts
 - maintainer rates , average household size
- Dwelling structure types:
 - Single detached dwelling on fee simple lot
 - Multiple-attached (xplex, laneway, coach, suite)
 - ***Townhousing
 - Apartments

Metro Employment Trends Work Status

Work Location (Census)



Employment Tenure (Census)

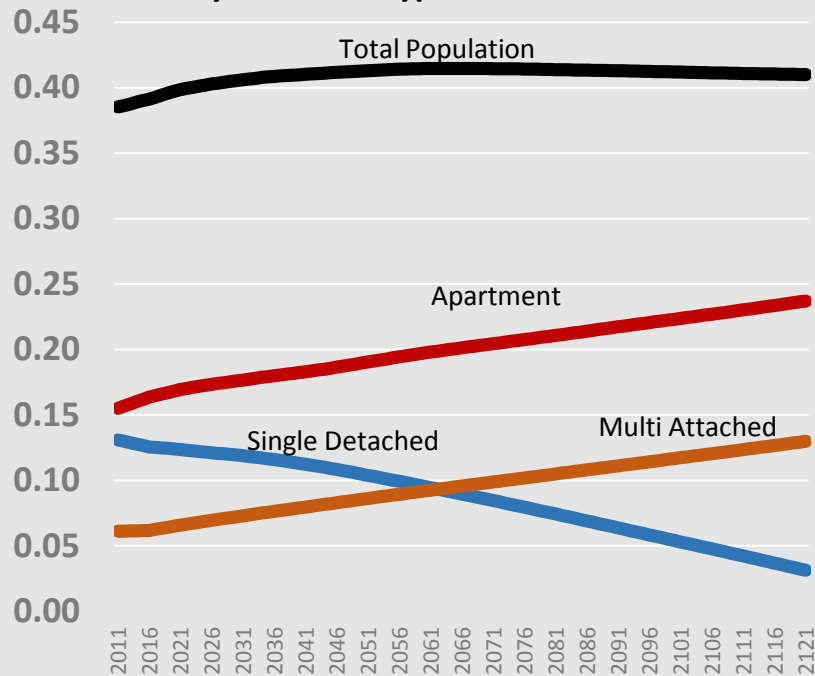


Baseline Scenario Assumptions - Employment

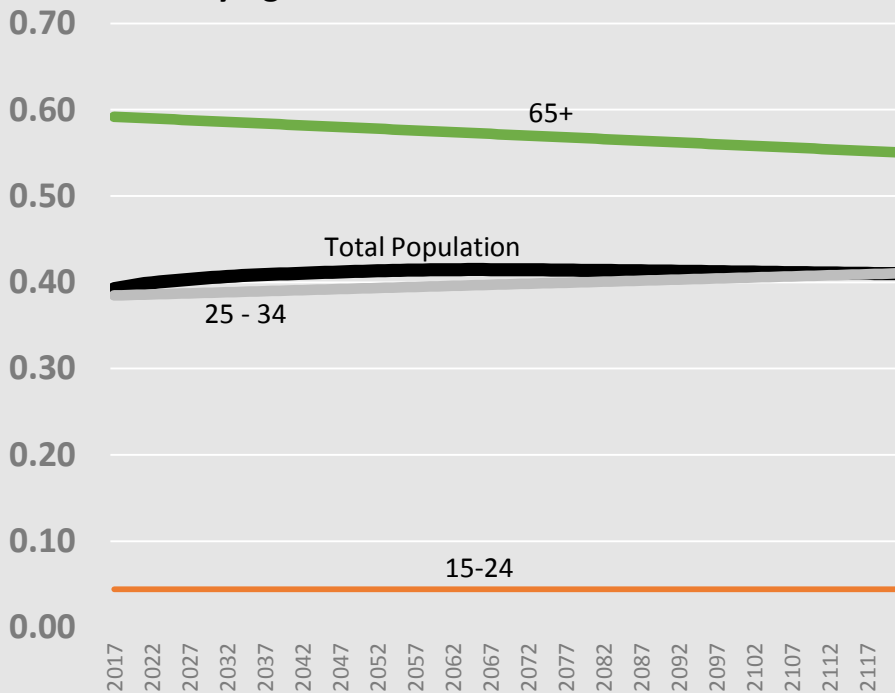
- Component industry sector trends within the regional economy are relatively consistent
- Immigration will support labour force demand
- A decreasing regional employment to population ratio from .52 in 2016 to .50 by 2041 to .45 by 2121 (technology and aging population)
- Increasing proportion of no-fixed location and part-time vs full-time employment

Household Maintainer Rates

Rates by Structure Type



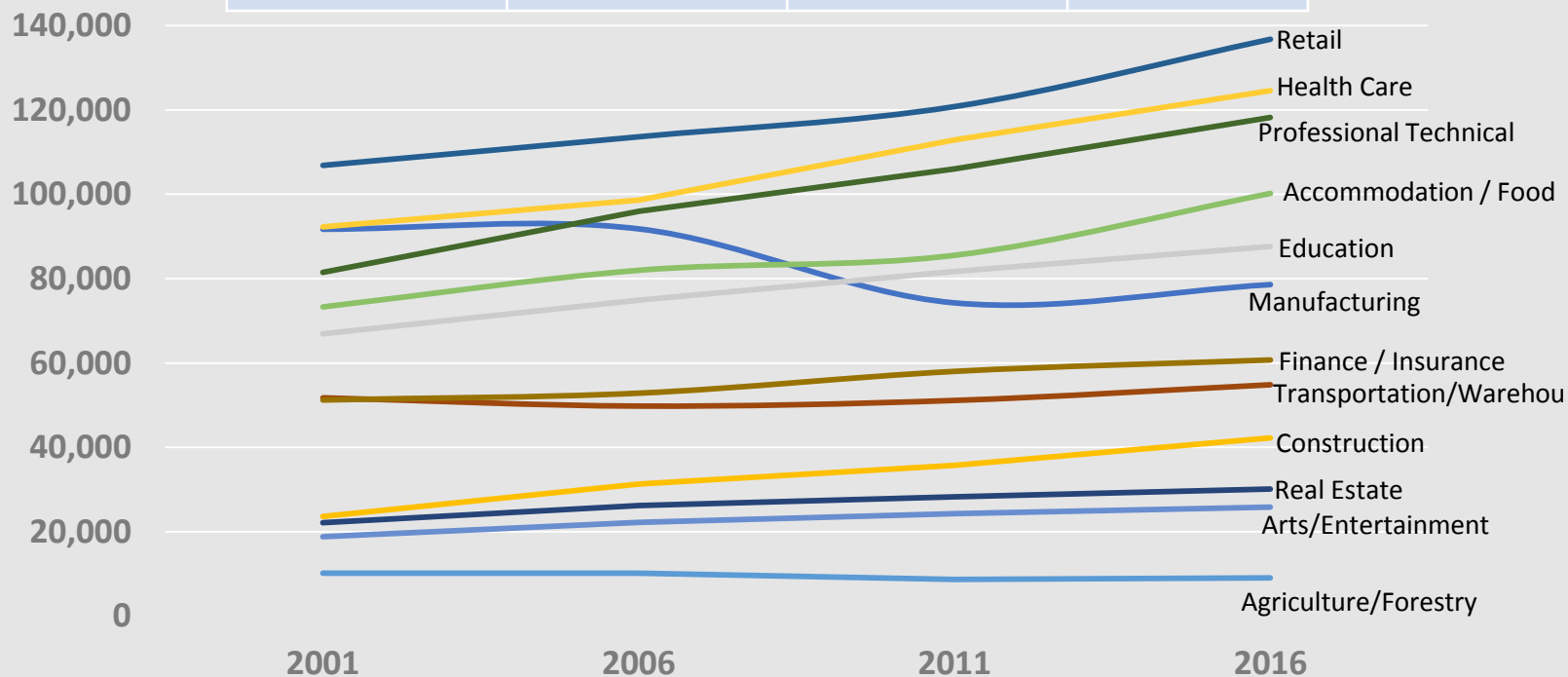
Rates by Age Cohort



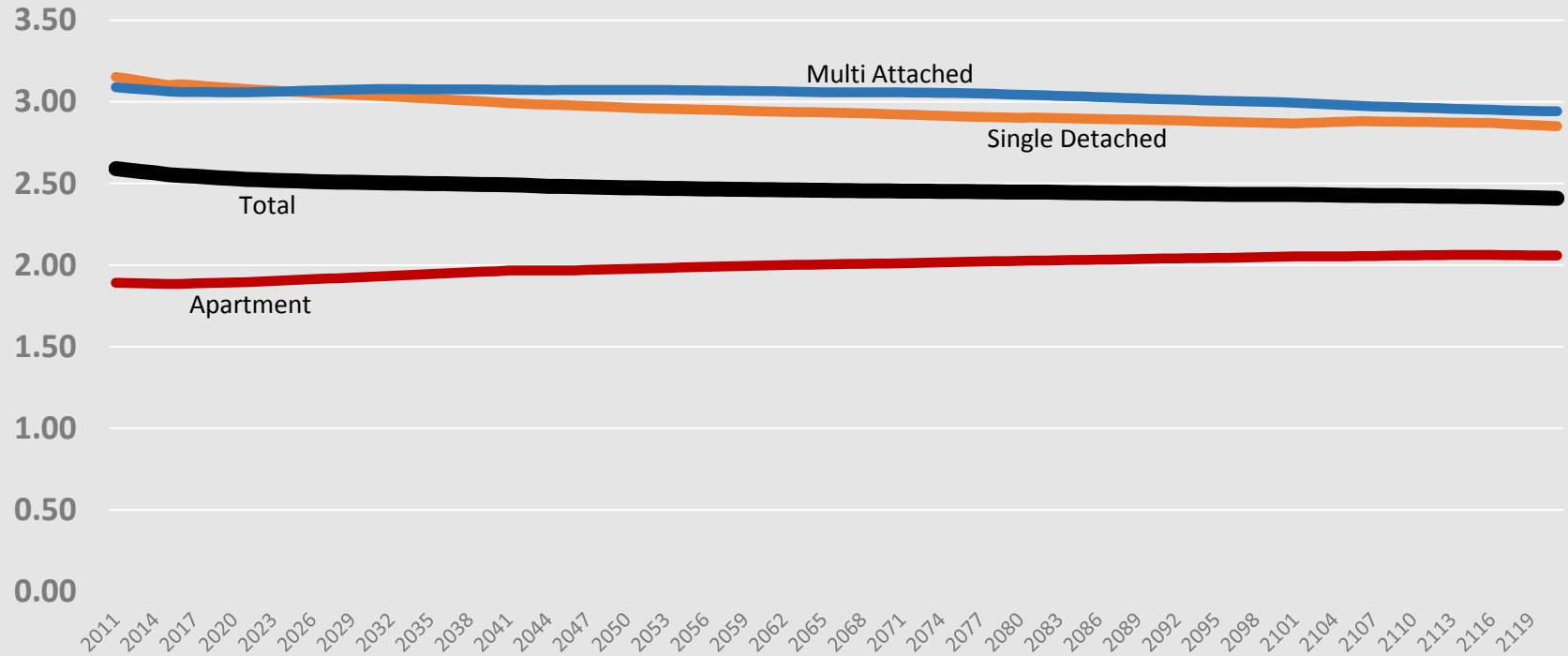
Metro Employment Trends by Industry Sector

Job Growth 2001-2016

Total 2001	Total 2006	Total 2011	Total 2016
1,050,000	1,160,000 (+110,000)	1,209,000 (+50,000)	1,305,000 (+96,000)



Average Household Size



Growth Analytics and Projections

Method

- Baseline – benchmarks, indicators, trends
- Monitoring process and current estimates method
- Growth projection scenarios, methods, indicators, assumptions, applications



Growth Analytics and Projections

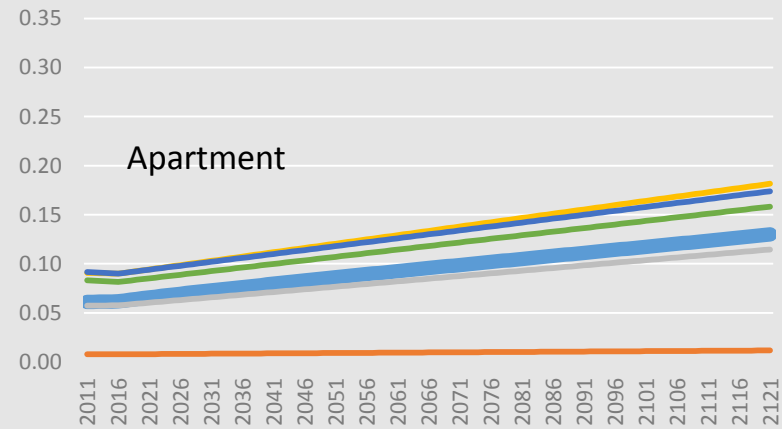
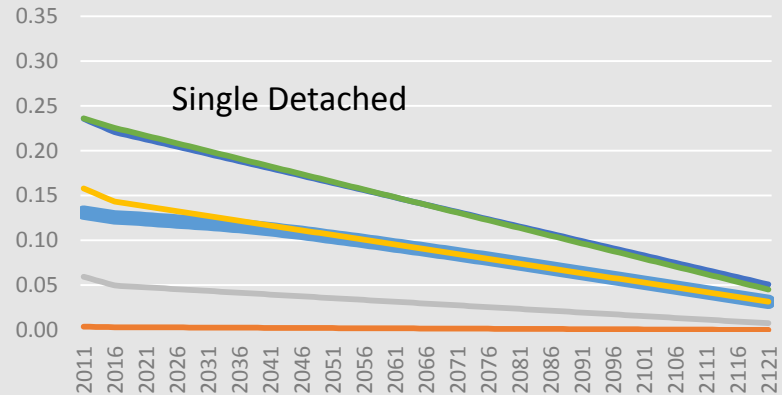
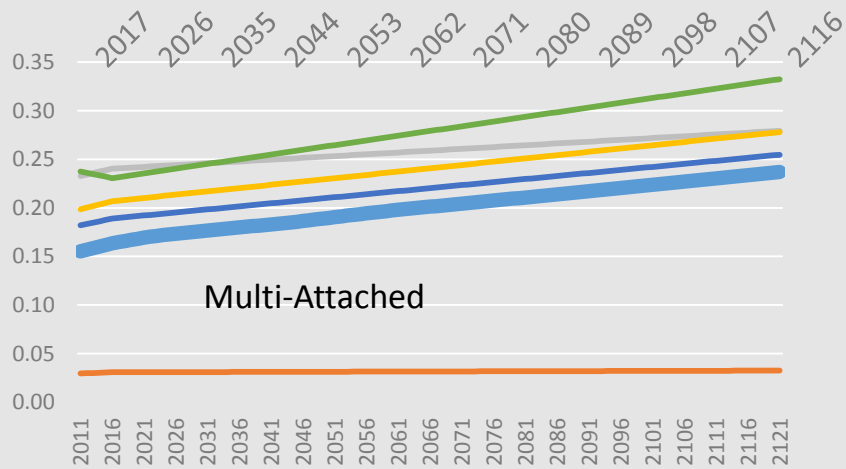
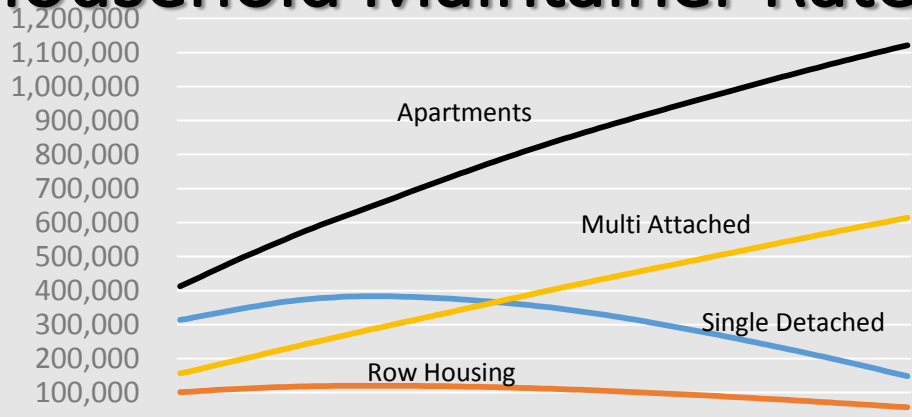
- Scenario Approach
- Assumptions, Assumptions
- Modeling Techniques
- Validation



Preparing Growth Projections

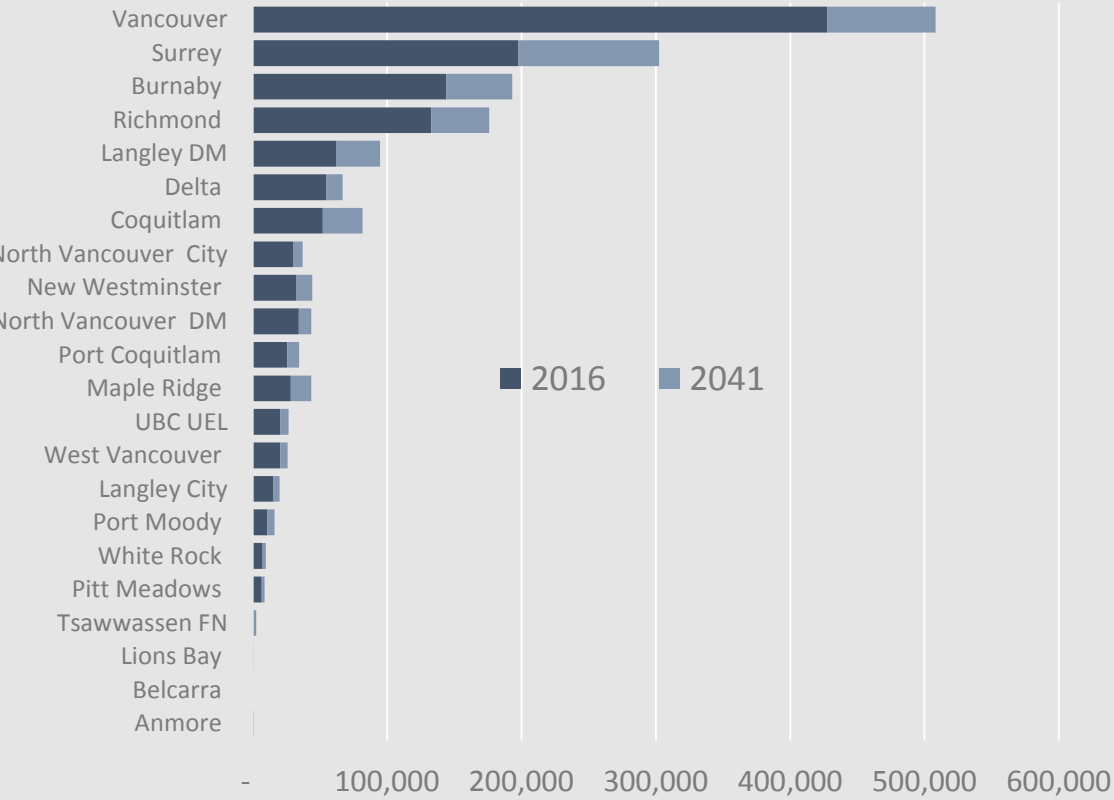
- Metro Vancouver is the municipal collective
- There can be various depths of research, analytics and resources involved in preparing growth projections - the intensity and complexity must be balanced with practical application, resources and time considerations
- All projections are, explicitly or implicitly, scenario based. A scenario is a set of assumptions regarding the factors that will determine the projections
- Projections are not intended as precise predictions - represent a range of possibility given a set of assumptions, indicators and associations
- Can't predict the future, but being a planner means that you must anticipate the future
- Almost always wrong

Household Maintainer Rates



Projected Municipal Employment 2016 - 2041

Preliminary 2016 Estimates



	% of Total		% of Growth
	2016	2041	2016-2041
Vancouver	33%	29%	19%
Surrey	15%	17%	25%
Burnaby	11%	11%	10%
Richmond	10%	10%	9%
Langley DM	5%	5%	8%
Delta	4%	4%	3%
Coquitlam	4%	5%	7%
North Vancouver DM	3%	3%	3%
New Westminster	2%	3%	3%
North Vancouver City	2%	2%	1%
Maple Ridge	2%	3%	4%
Port Coquitlam	2%	2%	2%
West Vancouver DM	2%	1%	1%
UBC UEL	2%	2%	1%
Langley City	1%	1%	0%
Port Moody	1%	1%	1%
White Rock	1%	1%	1%
Pitt Meadows	1%	1%	1%
Anmore	0%	0%	0%
TFN	0%	0%	0%
Lions Bay	0%	0%	0%
Belcarra	0%	0%	0%

Current / Annual Estimates

Comparative Assessment and Iteration

- Assess data sources of annual regional and municipal population and housing estimates
- Census 2016 – 2,464,000 (2,513,000 with 1.97% UC).....+150,000
 - Metro Vancouver – est 2,525,000 2,513,000.....+150,000
 - BC Stats – est 2,558,000 2,563,000.....+185,000

Establishing a Baseline and Benchmarking

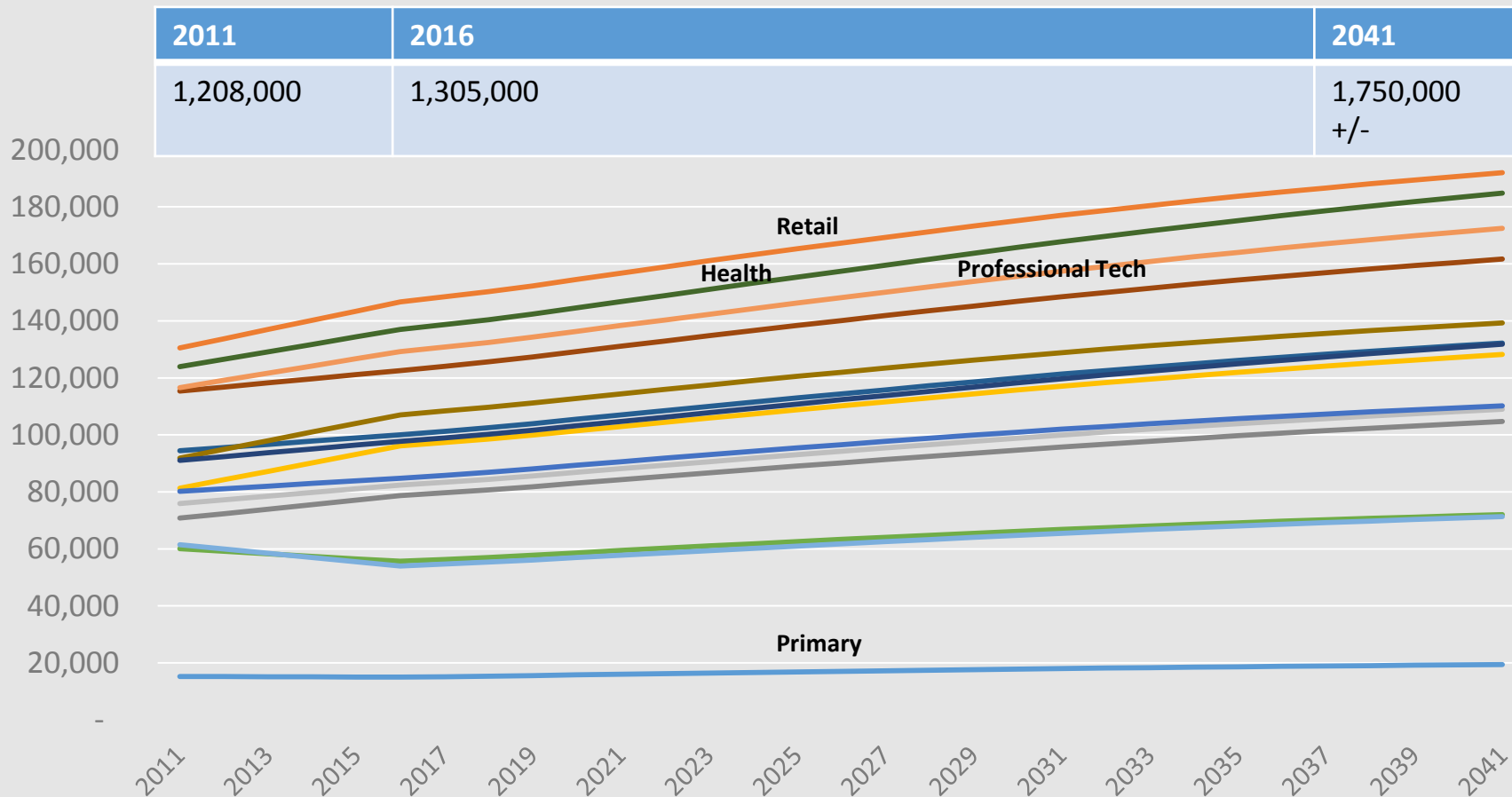
Census

- Base for population, housing, employment counts, plus undercount
- Indicators, associations, coefficients
- Past trends and associations in counts and indicators

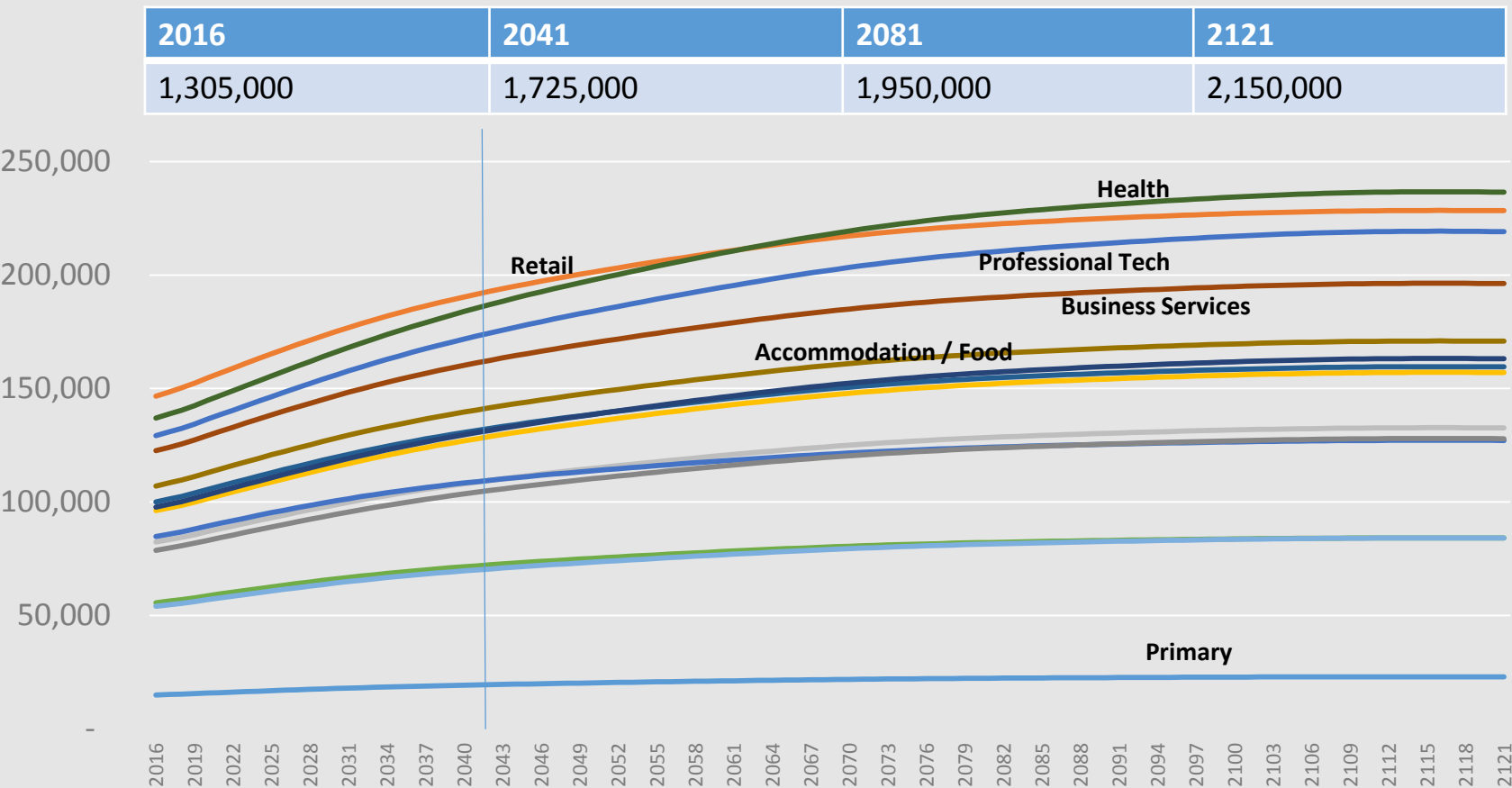
Land Inventories

- Metro 2040 Land Use Designations
- Municipal OCP and Local Area Plans
- Metro Vancouver Land Use Inventories

Projected Metro Employment by Industry Sector



Projected Metro Employment by Industry Sector



Current / Annual Estimates

Land Use

- Land development activity / absorption
- *Metro 2040* growth areas – Land use designations, Urban Containment Boundary, Urban Centres, transit corridors, remaining urban lands
- Municipal land use plans, development records
- Regional / Municipal GIS systems - cadastral and imagery
- Google Earth - aerial imagery / street view

Establishing a Monitoring Process

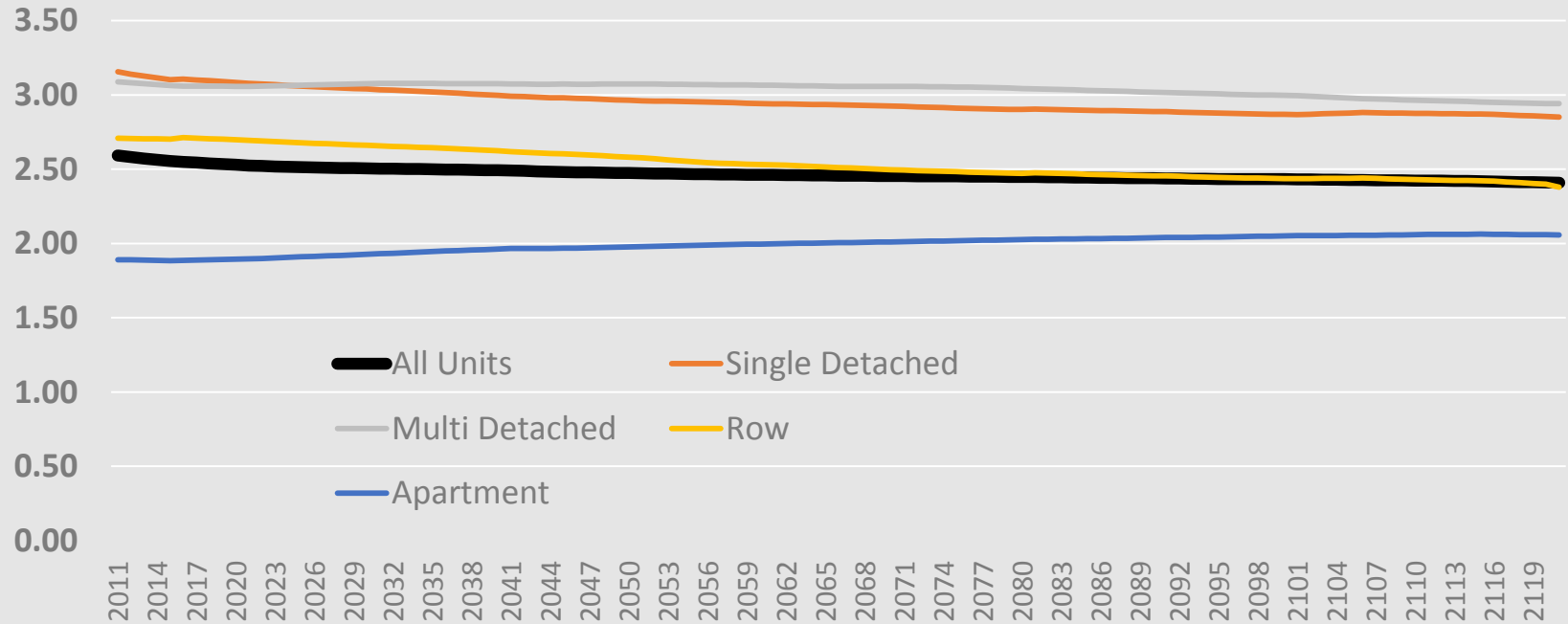
- Calculate annual estimates population, housing units, employment, land use
- Establish current data sources – components consistent with base and projection methods
- Review / assess current activity in relation to past base counts and trends
- Review / assess current activity in relation to short and longer term projections

Growth Analytics and Projections

Context and Applications

- Regional Growth Strategy
- Regional Context Statements - Municipal OCPs
- Regional Utilities Service Demand / Finance
- TransLink – RGS collaboration in transportation modeling
- Reference to Province of BC, regional agencies

Average Household Size



Current / Annual Estimates

Housing

Estimate new dwelling unit completions and demolitions by structure type

- CMHC new housing – custom data acquisition for housing starts and completions by municipality, type and tenure
- Municipal building permit records for starts, completions, and demolitions

Current / Annual Estimates

Population

- Demographic method
- Net new dwelling method
- Comparative analysis and iteration

Current / Annual Estimates

Demographic Method – Current Data and Cohort Modeling

- Natural Increase – births, deaths
- Immigration, emigration, non-permanent residents
- Inter-Provincial migration to and from Canadian provinces
- Intra-Provincial migration to and from other BC regions
- Inter-Municipal migration – cohort modeling – Census trend allocation indicators

Growth Forecasting Applications

Primary Components

- **Population** - Age, Gender
 - Household formation
 - Housing by structure type and tenure
 - Labour Force
- **Employment by Sector**
- **Commercial / Industrial / Institutional Development**
- **Land Capacity and Utilization**
 - *Metro 2040* Growth Concept

Contextual Factors

- **Economy**
- **Technology**
- **Political / Policy**
- **Environment**
- **Transportation**

Population Annual Estimates

Demographic Method – Current Data and Cohort Modeling

- Natural Increase – births, deaths
 - BC vital statistics, cohort modeling Census trend allocation indicators
- Immigration, emigration, non-permanent residents
- Inter-Provincial migration to and from Canadian provinces
- Intra-Provincial migration to and from other BC regions
 - Statistics Canada – quarterly and annual flows
 - Cohort modeling – Census trend allocation indicators
- Inter-Municipal migration – cohort modeling – Census trend allocation indicators

Current / Annual Estimates

Housing Allocation to Population Method

- Net new dwelling units by municipality, structure type and average household size.
- Iterate demographic allocations to best fit housing allocations for the region and municipalities.
- May assume additional households in secondary units.
- May be temporary unabsorbed oversupply of new housing.