

Transfer of Development Rights (TDR) Market and Economic Analysis

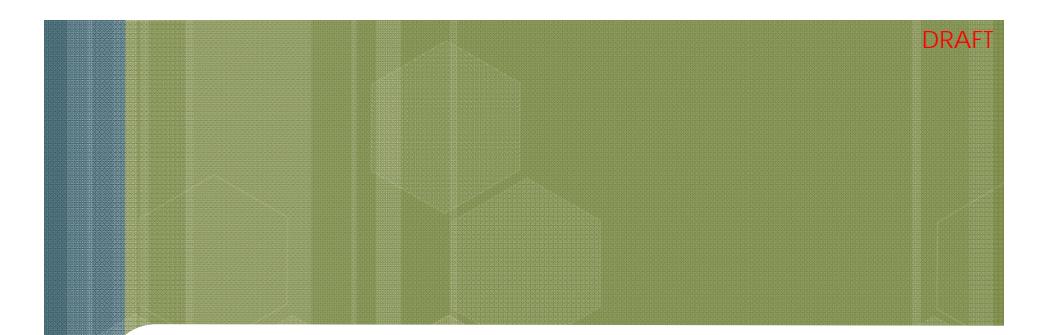


November 14, 2013

HEARTLAND

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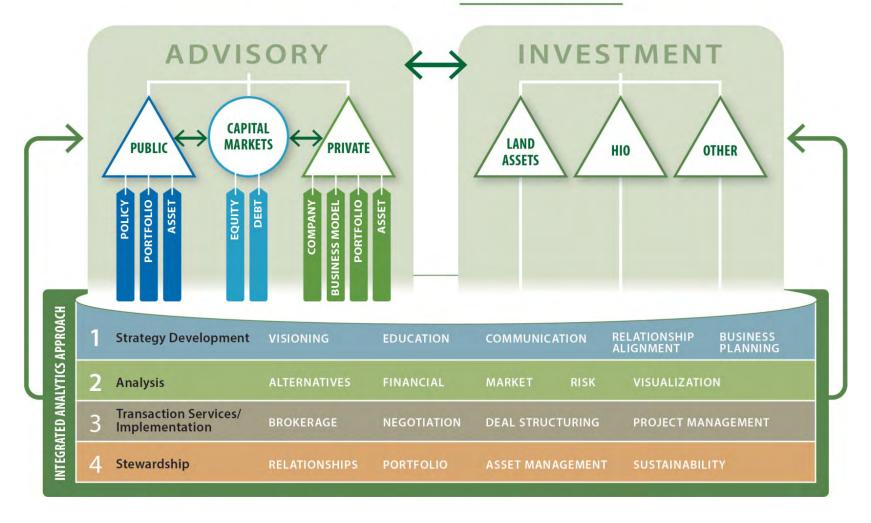


Introduction

- Who We Are
- Criteria of Successful TDR Programs
- Process Outline
- Timeline

Who We Are

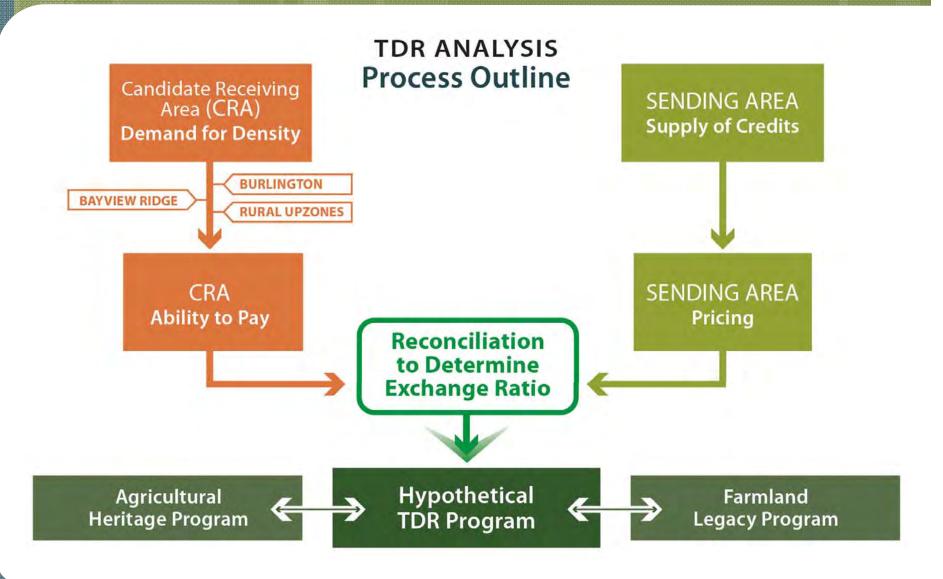
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Four Criteria of Successful TDR Programs

- Market Demand for Additional Density
- Affordability
- Priority within Incentive Stack
- Option Flexibility

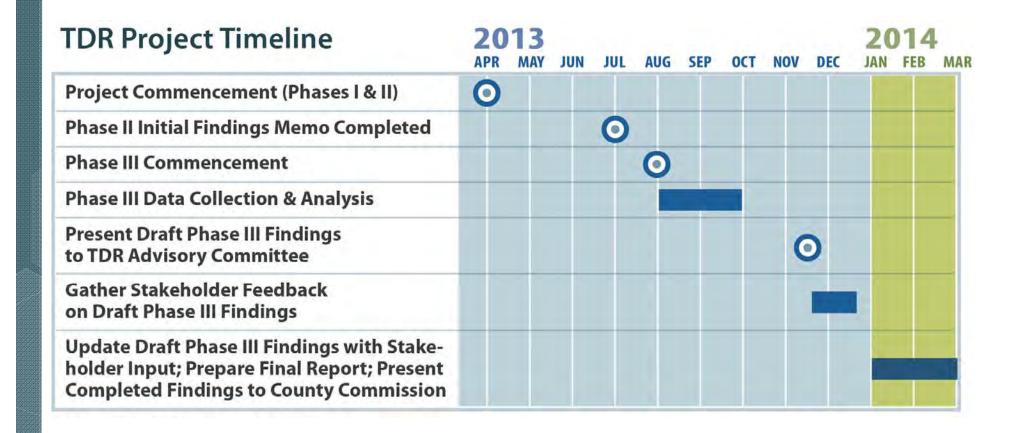
Process Outline

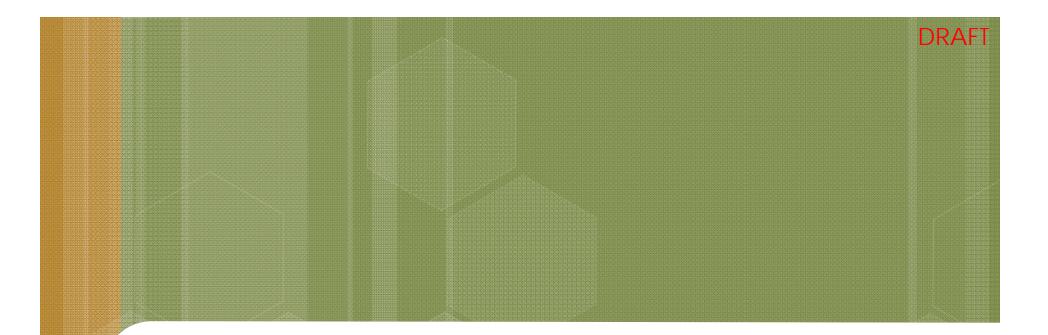


Approach

- Phase II: Initial Rough-Order-of-Magnitude ("ROM") findings based on review and assimilation of existing projections, studies and reports.
 - Goal: Determine study areas for further consideration in Phase III.
- Phase III: Deeper analysis of selected areas from Phase II, using primary data to inform TDR program economics
 - Goal: Determine relative value of density credits for sending and receiving sites to inform a TDR program exchange ratio

Timeline



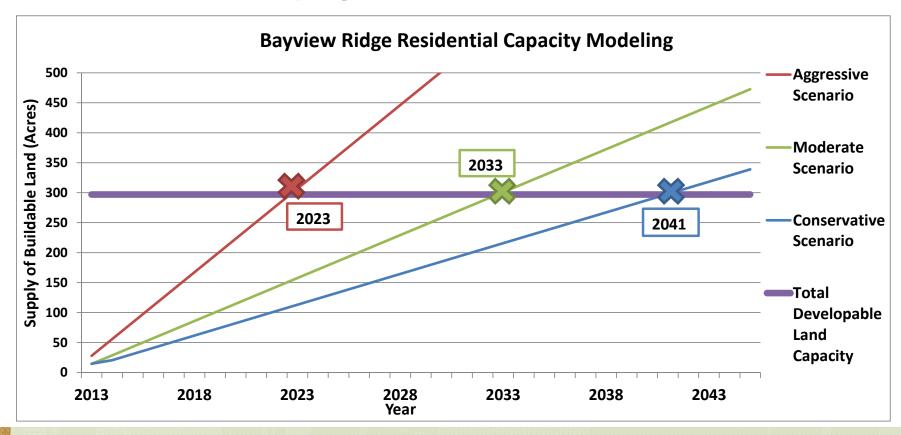


Phase II Analysis

- Methodology
- Findings

Supply & Demand Methodology

- Capacity modeling in each CRA to determine ROM demand for density above base zoning
- CRAs with relatively near-term supply constraint were considered best-suited for a TDR program



Supply & Demand Findings

	Burlington CRA	В	ayview Ridg	Rural Upzones	
Scenario	Commercial/Residential	Comn	Commercial		Residential
		BR-HI	BR-LI		
Dev. Capacity Threshold under Moderate Growth Assumptions	2036	2046	2060+	2033	N/A
Further Investigation in Phase III	YES	NO	NO	YES	YES

- Bayview Ridge Commercial CRA was determined to have the least viability for a TDR program and was not moved through to Phase III
- Burlington CRA and Bayview Ridge Residential CRA reach capacity limits in a 25-year planning horizon
- The Rural Upzone CRA looks at a less-defined land area and was not suitable for capacity analysis.
 - History of upzone requests is evidence demand exists

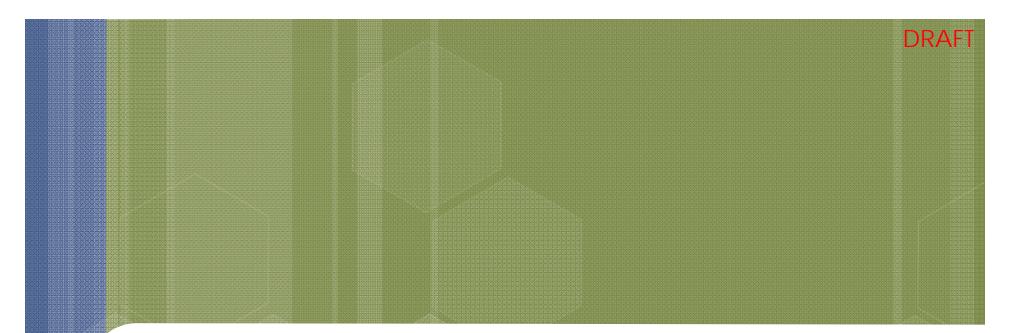
TDR Economics Methodology

- Review existing body of research related to sending site pricing and receiving site ability to pay
- Sources reviewed:
 - Farmland Legacy Program appraisals by Bob Suttles (2012);
 - "Demand for & Value of Density Credits" report by Thomas/Lane & Associates and Bill Mundy & Associates (2009)
- Determine areas of focus for Phase III analysis

TDR Economics Findings

Exchange Rate A	nalysis with Suttles/Mundy Ir	nputs	
Sending Site Value	Receiving Site Ability to Pay by CRA @		Implied Ratio of Urban Units per Conservation Unit
\$100,000	Bayview Residential: Burlington Commercial:	\$6,736 per DU \$10.50 per GBSF	15 Units 9,524 GBSF
. ,	Burlington Residential:	\$2,300 per DU	43 Units

- Implied exchange ratios indicate value discrepancy between sending and receiving sites
 - Projected annual demand is 37 units in Burlington; 58 units in Bayview Ridge
- Areas of focus in Phase III:
 - Sending Site Values for Non-Ag Land
 - Ag-NRL Values from Expanded Suttles Appraisal Set
 - Updated Receiving Site Ability-to-Pay
 - Rural Upzone Sending/Receiving Values



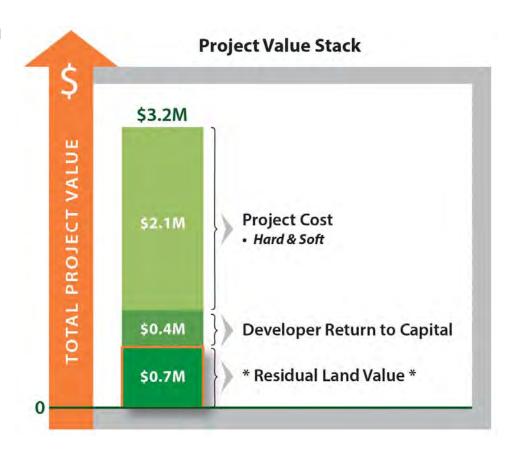
Phase III Analysis

- Methodology
- Bayview Ridge CRA
- Burlington CRA
- Rural Upzones CRA

- Sending Zones
- Exchange Rate Analysis
- Existing Programs

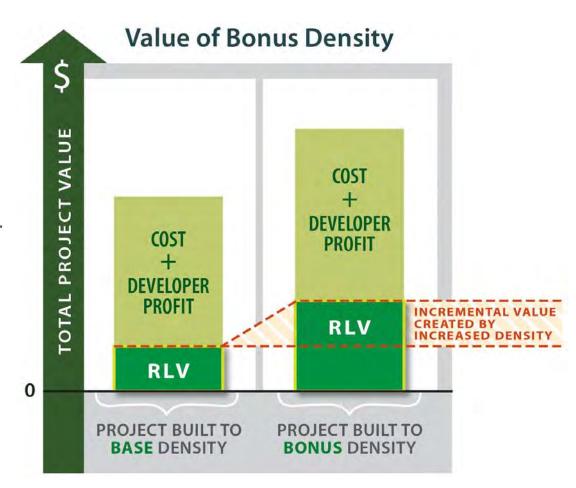
Methodology

- Residual Land Value (RLV) = What new development can afford to pay for land given:
 - Development Value
 - Development Cost
 - Return on Capital (profit) to Equity
- Land Sales
 - Market-driven indication of land value
 - Preferable to RLV when robust set exists

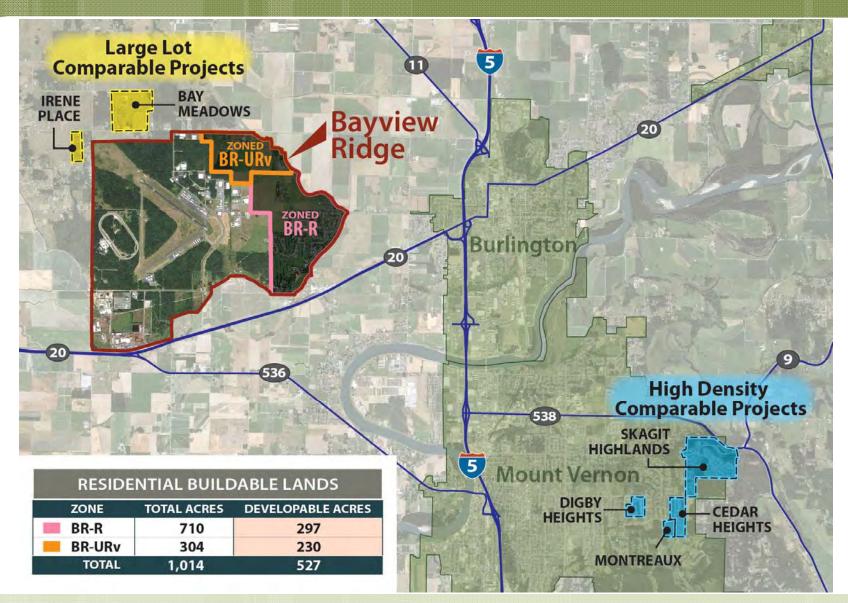


Methodology

- Residual Land Value
 - Calculate Base Land Value
 - Calculate Bonus Increment
- Actual Fee Charged for Density
 - Lower of Incremental Value and Cost of Additional Land
 - TDR only attractive if less expensive than next available option



Bayview Ridge CRA



Bayview Ridge Residential

1 DU/5 Acre Clustered



BR-UR CaRD

Land Value Increases

4 DU/Acre Sub-Division



BR-R Base

6 DU/Acre Sub-Division



BR-R Bonus

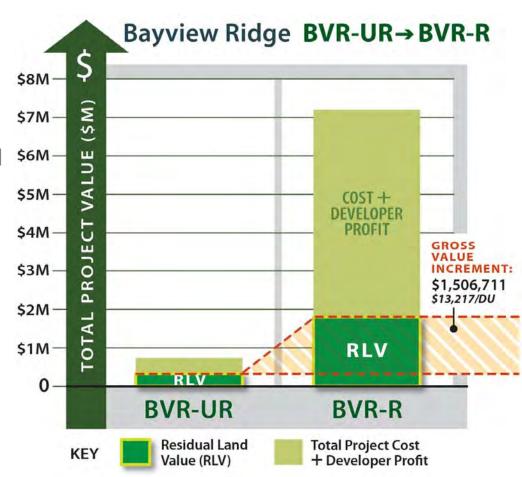
Bayview Ridge Residential BVR-UR -> BVR-R

Incremental value

- 30-Acre development
- 6 lots under base
- 120 lots under bonus
- Gross value added: \$1.5M
- \$13K/Lot

Credit Pricing:

- Base land value: \$42K/Lot
- Pricing based off incremental
- @ 50% Fee, credits at \$6,500



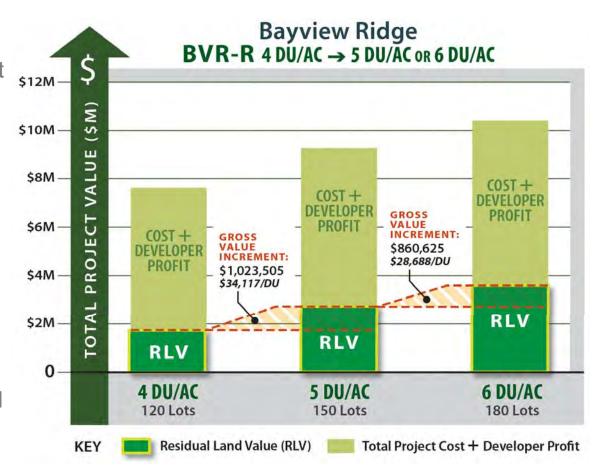
Bayview Ridge Residential BVR-R 4 DU -> 6 DU

Incremental Value

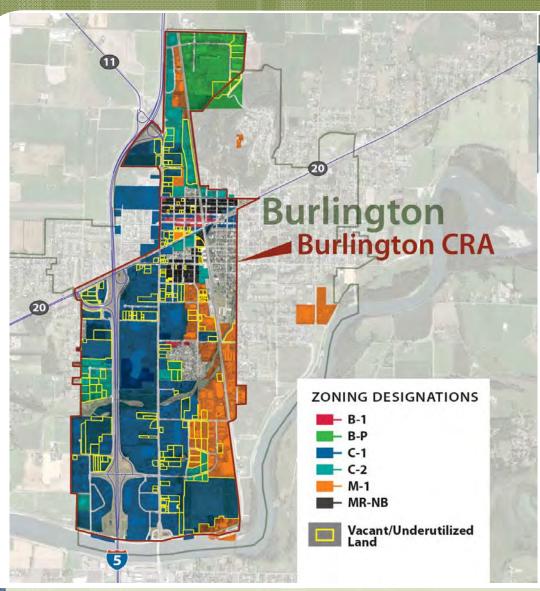
- 30-acre development
- 120 lots under base
- 150/180 lots under bonus
- $4 \rightarrow 5 = 1M, 34K/lot$
- 5 -> 6 = \$860K, \$28K/lot

• Credit Pricing:

- Base land value: \$15K/Lot
- Pricing based off land value
- @ 50% Fee, credits at \$7,500



Burlington CRA



2012 BLA BY CITY OF BURLINGTON (ACRES)					
ZONE	VACANT	UNDERUTILIZED	BUILDABLE		
C-1	70	63	133		
C-2	103	1	104		
■ MR-NB	3	3	6		
B-P	15	2	17		
■ B-1	0	0	0		
M-1	45	28	73		
		TOTAL	333		

- Majority of buildable land exists in C-1, C-2 and M-1 zones
- Geographic concentrations of buildable land

Burlington Residential Zoning Context

Burlington Residentia	l Zoning			
	C-1	C-2	MR-NB	B-1
District Description:	General Commercial	Heavy Commercial District	Medium Density Res &	Business District
	District		Neighborhood Bus.	
Residential Dev	Mixed-use buildings have	Single-purpose or mixed-	Single-purpose or mixed-	Only allowed with ground
Qualification:	limited restrictions. Single-	use have the following	use have the following	floor commercial uses.
	purpose have the	restrictions:	restrictions:	
	following restrictions:			
Density				
Max DU / Ac	14	14	14	14
Max Units	None	None	8 units	No Limit
Max Building Size	8,000	8,000	6,500	No Limit
Max Parcel Size	No Limit	No Limit	24,000	No Limit
Max Height				
Stories	2	2	2	4
Height (ft)	30	30	35	45
Site Restrictions				
Min Lot Depth	0	80	0	0
Min Lot Width	0	60	0	0
Max Lot Coverage				
Impervious	70%	70%	100%	100%
Buildings	30%	30%	100%	100%

Burlington Residential

14 DU/Acre Attached Townhomes 23 DU/Acre Stacked Units







Base C1, C2, MR-NB & B1 Density

Potential Market-Driven Bonus Density

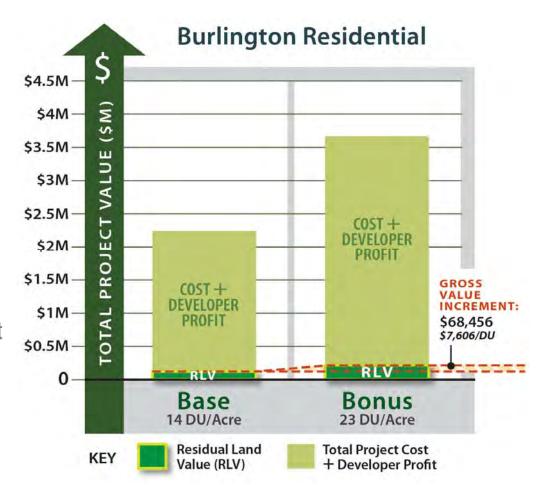
Burlington Residential

Incremental Value

- 1-acre development
- 14 units under base
- 23 units under bonus
- Value increment: \$68K
- \$7K/unit

Credit Pricing:

- Base land value: \$8K/unit
- Pricing based off value increment
- @ 50% Fee, credits at \$3,500



Burlington Commercial Zoning Context

Burlington Commercial Zoning						
	C-1	C-2	M-1	B-P	B-1	
District Description:	General₪	Heavy © Commercial	IndustrialDistrict	Businessæark	Business®District	
	Commercial	District				
	District					
Density						
Min ® Lot®Area	0	0	0	435,600	0	
MinILotIDepth	0	0	0	0	0	
Max 1 Lot 1 Coverage	100%	100%	100%	100%	100%	
Max⊞eight						
Stories	4	4	No₫imit	No₫imit	4	
Height∄ft)	45	45	45	35	45	

- Few dimensional/density restrictions on commercial development
- Development density dictated by market demand for space/parking

Burlington Commercial

- Without zoning constraints, TDR bonus increment does not exist (need a base zoning requirement to exceed)
- Heartland analyzed recent and historical development to determine a hypothetical base FAR (0.3)

0.3 FAR; 5 Stalls/KSF



Theoretical Base

0.35 FAR; 4 Stalls/KSF



Theoretical Bonus

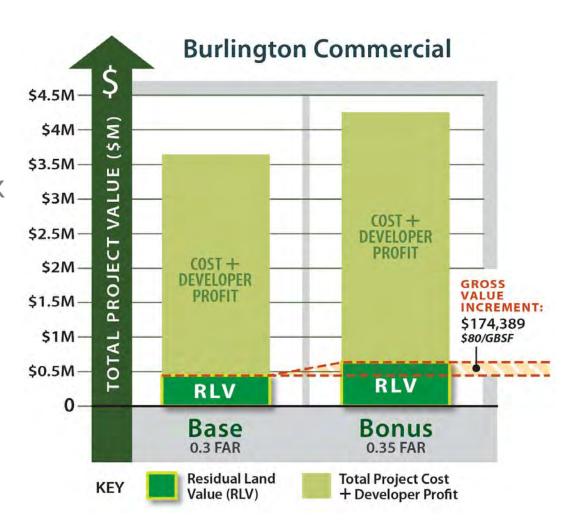
Burlington Commercial

Incremental Value

- 1-acre development
- 13 KSF under base
- 15 KSF under bonus
- Value increment: \$174K
- \$80/GBSF

Credit Pricing:

- Base land value: \$35/GBSF
- Pricing based off land value
- @ 50% Fee, credits at \$17.50/GBSF



Rural Upzones

- Rural Residential Upzone Activity (To Date)
 - 12 Permit applications involving a total of 57 unique parcels
 - A total of roughly 400 acres comprise the permits relative to over 440k acres in eligible zones.
 - A total of roughly 31 (w/o CaRD) and 42 (w/ CaRD) development rights added



Summary of Rezone Applications by Year (Parcel Count)

				Ye	ar of R	ezone	Appro	val
Upzone Action	Zone Before	Zone After	Permit	2004	2007	2008	2012	Total
IF to SF	IF-NRL (1/80)	SF-NRL (1/20)	PL05-1011		1			1
			PL05-1013		1			1
RRc to RRv	RRc-NRL (1/40,	RRv (1/10, 2/10)	PL02-0434	4				4
	1/10)		PL05-1033		4			4
			PL05-1037		24			24
			Bates 2007			15		15
			PL11-0250				1	1
RRv to RI	RRv (1/10, 2/10)	RI (1/2.5)	PL05-1051		1			1
			Alger RI			2		2
			PL11-0240				2	2
RRv to RVR	RRv (1/10, 2/10)	RVR (1/1)	PL05-1054		1			1
SF to RRv	SF-NRL (1/20)	RRv (1/10, 2/10)	PL05-1064		1			
Total				4	33	17	3	57

Summary of Potential Density Impact from Rezone

Upzone Action	Permit	Density Before	Density After	Density Impact	Density Before (w CaRD)	Density After (w CaRD)	Density Impact (w CaRD)
IF to SF	PL05-1011	4	6	2	5	6	1
	PL05-1013	5	7	2	6	7	1
RRc to RRv	Bates 2007	2	7	5	7	14	7
	PL02-0434	3	6	3	6	12	6
	PL05-1033	4	4	0	4	8	4
	PL05-1037	2	8	6	8	16	8
	PL11-0250	1	3	2	3	7	4
RRv to RI	Alger RI	2	4	2	2	4	2
	PL05-1051	1	2	1	1	2	1
	PL11-0240	2	4	2	2	4	2
RRv to RVR	PL05-1054	1	6	5	3	8	5
SF to RRv	PL05-1064	1	2	1	1	2	1
Total		28	59	31	48	90	42

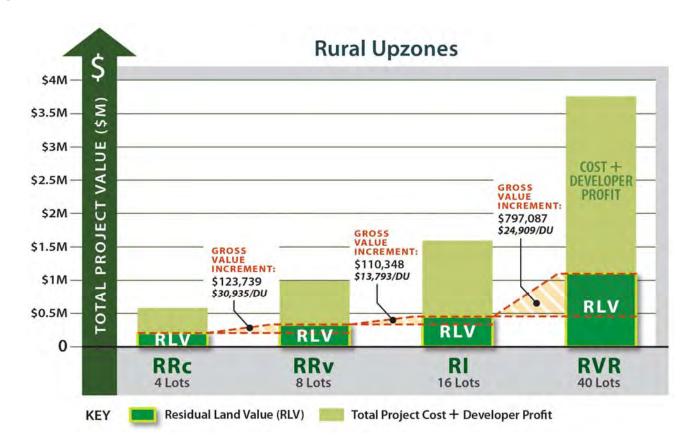
Rural Upzones

Incremental Value

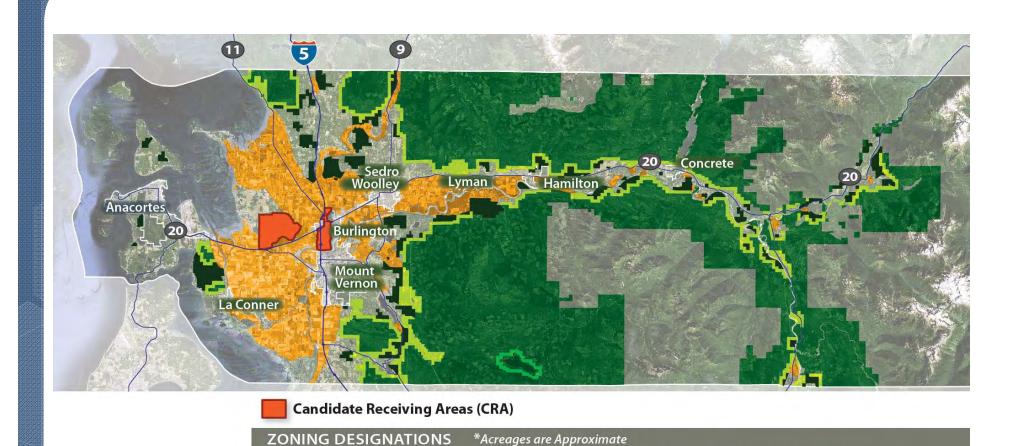
- 40-acre development
- 4/8 lots under base
- 8/16/40 lots under bonus
- RRc -> RRv: \$31K/Lot
- RRv -> RI: \$14K/Lot
- RRv -> RVR: \$25K/Lot

Credit Pricing:

- Base land value: \$27K - \$50K/lot
- Pricing based off increment value
- @ 50% Fee, credits at \$7,000 - \$15,500



Sending Zones



Agriculture (Ag-NRL) 84,000 Acres

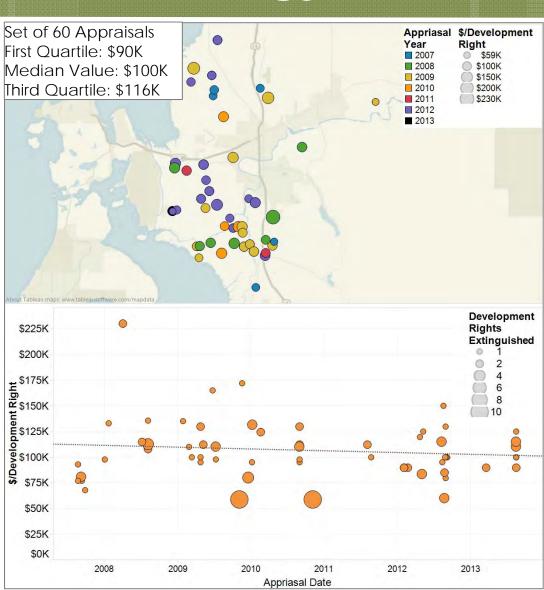
Industrial Forest (IF-NRL) 312,000 Acres

Rural Resource (RRc-NRL) 25,000 Acres

Secondary Forest (SF-NRL) 36,000 Acres

Sending Value Methodology- AG-NRL

- Farmland Preservation appraisals provide proxy for TDR credit pricing
- Land use restrictions with TDR less than Farmland Preservations restrictions suggesting TDR would cost less.
- TDR credit pricing for Ag-NRL would range at or below the median values for Farmland Preservation credits
 - Model \$75k to \$100k per development right extinguished



Sending Value Methodology- Non-Ag Land

- In lieu of robust set of conservation easement sales in these zones, Heartland relied two key relationships:
 - Appraised Market vs. Taxable valuation
 - Before and after values with Ag-NRL appraisals
- Significant number of properties in sending zones are designated open space for tax reasons
 - Assessor assigns value to property under its current use and under market conditions
 - Market conditions value includes development rights
 - Difference between two values is proxy for \$ value of dev right

Non-Ag Sending Zone Pricing Indications			
Sending Zones	Value Per Development		
Sending Zones	Right		
Ag-NRL	\$75K - \$100K		
SF-NRL	\$20K - \$30K		
RRc-NRL	\$20K - \$30K		
IF-NRL	\$10K - \$15K		

Exchange Rate Analysis

- Residual land value analysis used to calculate value increment available to a developer from bonus TDR density
- Receiving ability to pay should be based of the lesser of:
 - Incremental value of bonus density to developer
 - Price of additional land (assuming land is available)
- Actual credit pricing is some % of receiving ability to pay
 - Policy concerns
 - Margin for error

Exchange Rate Analysis Bayview Ridge

Bayview Ridge Bonus Increment Values					
TDR Bonus	Per Lot Value of Increment	Per Lot Value of Base Land	Lesser of Increment/Land	Fee as % of Value	Per Lot Fee
BR-UR Bonus Density					
BR-UR -> BR-R	\$13,217	\$42,359	\$13,217	50%	\$6,608
BR-R Bonus Density					
4 DU/Acre -> 5 DU/Acre	\$34,117	\$14,674	\$14,674	50%	\$7,337
5 DU/Acre -> 6 DU/Acre	\$28,688	\$14,674	\$14,674	50%	\$7,337

Exchange Rate Calculation						
Sending Zones	Value Per	Exchange Rate	/ Sending DU)			
Sending Zones	Development Right	BR-UR -> BR-R	4 DU -> 5 DU	5 DU -> 6 DU		
Ag-NRL	\$87,500	13	12	12		
SF-NRL	\$25,000	4	3	3		
RRc-NRL	\$25,000	4	3	3		
IF-NRL	\$12,500	2	2	2		

Exchange Rate Analysis Burlington

Burlington Bonus Increment & Land Values						
TDR Bonus	Per Unit Value	Per Unit Value of	Lesser of	Fee as % of	Per Unit	
TDR Bollus	of Increment	Base Land	Increment/Land	Value	Fee	
Burlington Residential (DUs)						
14 DU/Acre -> 23 DU/Acre	\$7,606	\$7,973	\$7,606	50 %	\$3,803	
Burlington Commercial (GBSF)						
.3 FAR -> .35 FAR	\$80	\$35	\$35	50%	\$18	

Exchange Rate Calculation						
Sending Zones	Value Per	Exchange Rates (Receiving DU/GBSF PER Sending D				
Sending Zones	Development	Residential	Commercial			
Ag-NRL	\$87,500	23	4,980			
SF-NRL	\$25,000	7	1,423			
RRc-NRL	\$25,000	7	1,423			
IF-NRL	\$12,500	3	711			

Exchange Rate Analysis Rural Upzones

Rural Upzone Bonus Increment Values							
TDR Bonus	Base Density	Upzone Density	Per Lot Value of	Per Lot Value of	Lesser of	Fee as %	Per Lot Fee
Upzone	Dase Delisity		Increment	Base Land	Increment/Land	of Value	Per Lot ree
RRc -> RRv	1 DU/10 Acres	1 DU/5 Acres	\$30,935	\$50,065	\$30,935	50 %	\$15,467
RRv -> RI	1 DU/5 Acres	1 DU/2.5 Acres	\$13,793	\$40,500	\$13,793	50 %	\$6,897
RRv -> RVR	1 DU/5 Acres	1 DU/1 Acres	\$24,909	\$40,500	\$24,909	50%	\$12,454

Exchange Rate Calculation						
Sending Zones	Value Per	Exchange Rates (Receiving DU / Sending DU)				
Sending Zones	Development Right	RRc -> RRv	RRv -> RI	RRv -> RVR		
Ag-NRL	\$87,500	6	13	7		
SF-NRL	\$25,000	2	4	2		
RRc-NRL	\$25,000	2	4	2		
IF-NRL	\$12,500	1	2	1		

Review of Existing Programs

Farmland Legacy Program

- Purchase of Development Right Program that purchases land/easements in the Ag-NRL zone
- Nearly 7,000 acres protected by 2009 (est. in 1996)
- Conservation purchases funded by:
 - Conservation futures tax revenues
 - Donations
 - State/federal grant funding
 - Developer purchase of Farmland Density Credits (minimal to date)
- Conservation easement pricing based on Suttles' appraisals

Review of Existing Programs

Agricultural Heritage Program

- Burlington's existing Purchase Development Rights (PDR) Program
- Available in MR-NB, B-1, C-1 and R-3 zones in Burlington
- Credit pricing based on Mundy findings

Credit Pricing	
Bonus Units	\$/DU
1-5	\$2,500
6 - 10	\$1,500
11 or more	\$1,000

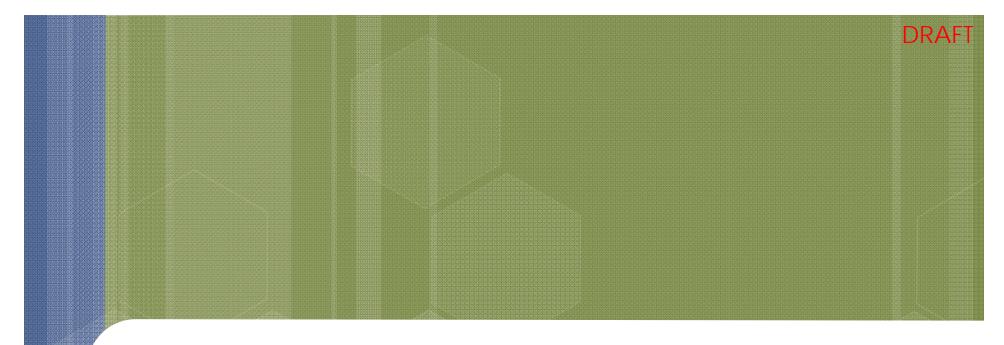


- Use since implementation:
 - One Project
 - July 20, 2010
 - Purchased 2 credits

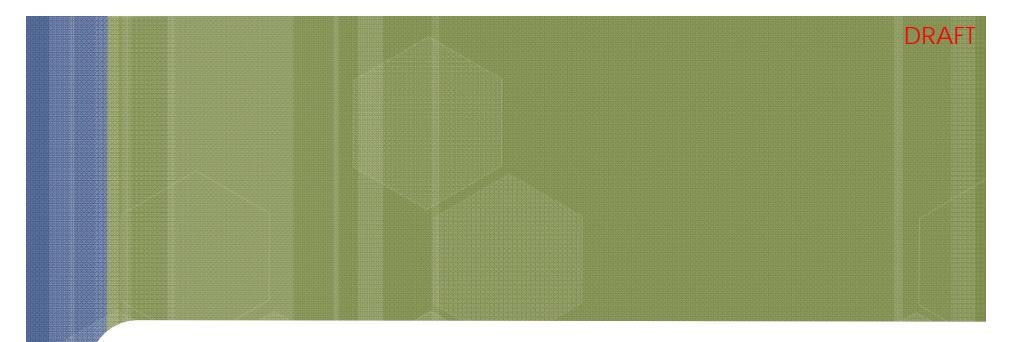
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Existing Program Synergies with Potential TDR Program

- Depends on County-wide Objectives
 - To conserve as much farmland as possible?
 - To balance conservation of farmland with forestland?
 - To conserve as much rural land of any kind?
 - To capture value from receiving area upzones?
- Ability to use PDR as bank of credits?
 - Monetizes program
 - Does not conserve more land
- Fee in Lieu
 - Funding source for PDR
 - Does not provide opportunity to conserve non Ag-NRL lands
 - Essentially the Ag Heritage Credit Program



Discussion



Reference Slides

BVR-UR RLV Model Inputs

BVR-UR RLV Model Inputs					
	Value/Input	Unit			
Acres Per Unit	5				
Lot Size	43,560	SF			
Space Program					
Site Area	30	Acres			
Total Lots	6	Lots			
Circulation	20%	% over lot size			
Total Residual Land Area	993,168	SF			
Residual Land Area Value	\$4,500	\$/Acre			
Finished Lot Revenue					
Finished Home Size	3,250	SF			
\$/SF	\$180				
Avg Finished Home Value	\$585,000				
Finished Lot-to-Home Ratio	20%				
Finished Lot Value	\$117,000				
Gross Finished Lot Value	\$702,000				
Gross Open Space Value	\$102,600				
Gross Project Revenue	\$804,600				
Costs					
Soft Costs	\$19,250	\$/Lot			
Hard Costs	\$55,000	\$/Lot			
Developer Profit	15%	% of Total Value			
Total Project Cost	\$445,500				
Developer Profit	\$104,948				
Residual Land Value	\$254,152				
	\$8,472	\$/Acre			
	\$42,359	\$/Lot			

BVR-R RLV Model Inputs

BVR-R RLV Model Inputs						
	Scenario 1	Scenario 2	Scenario 3	Unit		
Units/Acre	4	5	6			
Space Program						
Site Area	30	30	30	Acres		
Total Lots	120	150	180	Lots		
Circulation	25%	25%	25%	% Loss		
Lot Size	8,100	6,500	5,400	SF		
Finished Lot Revenue						
Finished Home Area	2,350	2,300	2,250	SF		
\$/SF	\$120	\$120	\$115			
Avg Finished Home Value	\$282,000	\$276,000	\$258,750			
Finished Lot-to-Home Ratio	22.5%	22.5%	22.5%			
Finished Lot Value	\$63,450	\$62,100	\$58,219			
Gross Project Revenue	\$7,614,000	\$9,315,000	\$10,479,375			
Costs						
Soft Costs	\$10,500	\$9,188	\$7,875	\$/Lot		
Hard Costs	\$30,000	\$26,250	\$22,500	\$/Lot		
Developer Profit	15%	15%	15%	% of Total Value		
Total Project Cost	\$4,860,000	\$5,315,625	\$5,467,500			
Developer Profit	\$993,130	\$1,215,000	\$1,366,875			
Residual Land Value	\$1,760,870	\$2,784,375	\$3,645,000			
Per SF	\$1.35	\$2.13	\$2.79	\$/SF		
Incremental Value Added		\$1,023,505	\$860,625			
Per Unit		\$34,117	\$28,688	\$/Unit		
Per Unit from 4 -> 6			\$31,402			

Rural Upzones RLV Model Inputs

Rural Upzones Model Inputs						
	Value/Input	Value/Input	Value/Input	Value/Input	Unit	
Zone	RRc	RRv	RI	RVR		
Acres Per Unit	10	5	2.5	1		
Lot Size	43,560	43,560	21,780	21,780	SF	
Space Program						
Site Area	40	40	40	40	Acres	
Total Lots	4	8	16	40	Lots	
Total Lot Area	174,240	348,480	348,480	871,200	SF	
Circulation	15%	15%	20%	20%	% over lot size	
Total Lot Area + Circ	200,376	400,752	418,176	1,045,440	SF	
Total Residual Land Area	1,542,024	1,341,648	1,324,224	696,960	SF	
Finished Lot Revenue						
Finished Home Area	2,500	2,500	2,350	2,350	SF	
\$/SF	\$190	\$190	\$175	\$175		
Avg Finished Home Value	\$475,000	\$475,000	\$411,250	\$411,250		
Finished Lot-to-Home Ratio	22.5%	22.5%	22.5%	22.5%		
Finished Lot Value	\$106,875	\$106,875	\$92,531	\$92,531		
Gross Finished Lot Value	\$427,500	\$855,000	\$1,480,500	\$3,701,250	# of lots x finished lot value	
Open Space Value	\$4,500	\$4,500	\$4,500	\$4,500	\$/Acre	
Gross Open Space Value	\$159,300	\$138,600	\$136,800	\$72,000		
Gross Project Revenue	\$586,800	\$993,600	\$1,617,300	\$3,773,250		
Costs						
Soft Costs	\$17,500	\$17,500	\$15,750	\$14,000	\$/Lot	
Hard Costs	\$60,000	\$50,000	\$45,000	\$40,000	\$/Lot	
Developer Profit	15%	15%	15%	15%	% of Total Value	
Total Project Cost	\$310,000	\$540,000	\$972,000	\$2,160,000		
Developer Profit	\$76,539	\$129,600	\$210,952	\$492,163		
Static RLV	\$200,261	\$324,000	\$434,348	\$1,121,087		
	\$5,007	\$8,100	\$10,859	\$28,027	\$/Acre	
	\$50,065	\$40,500	\$27,147	\$28,027	\$/Lot	

Burlington Residential RLV Model Inputs DRAFT

Burlington Residential RLV Model Inputs					
	Value/Input	Value/Input	Unit		
Lot Size	43,560	43,560	SF		
Density	14	23	DU/Acre		
Space Program					
Units	14	23			
Unit Size	1,000	1,000	GSF		
Community Space	10%	10%	Of Bldg		
Total GSF	15,400	25,300	GSF		
Parking	1.5	1.5	Stalls/Unit		
Value Inputs					
Base Leasing Income	\$1.20	\$1.20	\$/NRSF		
Vacancy	5%	5%	of gross income		
Operating Expenses	\$5,015	\$5,015	\$/Unit/Yr		
NOI	\$134,637	\$221,189			
Cap Rate	6.0%	6.0%			
Gross Project Value	\$2,243,943	\$3,686,478			
Cost Inputs					
All-In Hard Costs	\$87	\$87	\$/GBSF		
Soft Costs	35%	35%	% of hard		
Project Cost	\$1,811,762	\$2,979,764			
Developer Profit	\$320,563	\$526,640			
Residual Land Value	\$111,618	\$180,075			
Per Unit Incremental Value		\$7,606			

Burlington Commercial RLV Model Inputs

DRAFT

Burlington Commercial RLV Model Inputs					
	Value/Input	Value/Input	Unit		
Lot Size	43,560	43,560	SF		
Density	0.30	0.35	FAR		
Space Program					
Building Size	13,068	15,246	GBSF		
Parking	5.0	4.0	Stalls/KSF		
Value Inputs					
Base Leasing Income	\$1.83	\$1.83	\$/RSF, NNN		
Vacancy	8%	8%	of gross income		
NOI	\$264,015	\$308,018			
Cap Rate	7.25%	7.25%			
Gross Project Value	\$3,641,592	\$4,248,524			
Cost Inputs					
All-In Hard Costs	\$87	\$87	\$/GBSF		
Soft Costs	35%	35%	% of hard		
Tenant Improvements	\$45	\$45	\$/GBSF		
Project Cost	\$2,740,956	\$3,099,931			
Developer Profit	\$441,405	\$514,973			
Residual Land Value	\$459,231	\$633,620			
Per SF Incremental Value		\$80			