LEAD ARSENATE MODEL REMEDY IMPLEMENTATION STEERING COMMITTEE

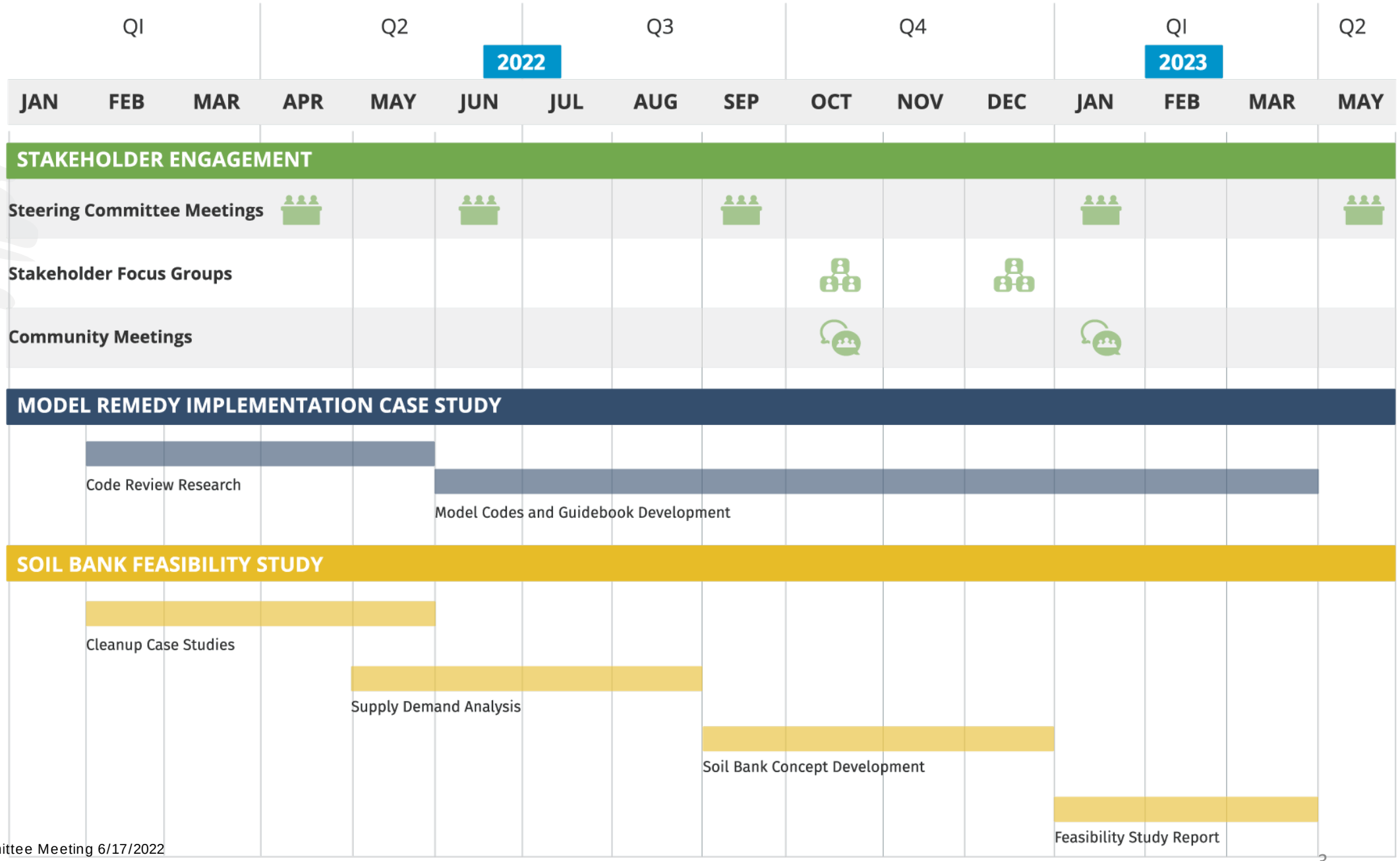
June 17, 2022

WSAC WASHINGTON STATE ASSOCIATION of COUNTIES

DEPARTMENT OF ECOLOGY State of Washington

Agenda

- Introductions
- Project Updates
  - Development and Cleanup Case Studies
  - GIS Analysis
- Code Development Discussion
- Next steps: Community Events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MAR
MAY
STAKEHOLDER ENGAGEMENT
Steering Committee Meetings
Stakeholder Focus Groups
Community Meetings
MODEL REMEDY IMPLEMENTATION CASE STUDY
Code Review Research
Model Codes and Guidebook Development
SOIL BANK FEASIBILITY STUDY
Cleanup Case Studies
Supply Demand Analysis
Soil Bank Concept Development
Feasibility Study Report

DEVELOPMENT CASE STUDIES

Pheasant Hills

Selland Construction

Project Overview	
Development Type	Single-family
Property Size (acres)	18.7
Housing Units	93
Individual Lot Size	6,000 to 8,000 sf
Typical Building Footprint	2,987 sf

Cleanup Metrics	Quantity	Percent of Property
Excavation Area	31,195 sf	3.8
Hard-Capped Area	531,432 sf	65.2
Soft-Capped Area	251,945 sf	30.9

Clean Soil Source	
Soil Source	Central Washington Asphalt
Distance from Property	8.1 miles or 12 minutes
Transportation Cost	$5/cy

Material Needs	Quantity	Cost/Unit/Comment
Clean Soil	10,000 cy	$5.00/cy

NOTES:
cy = cubic yards
sf = square foot

Chuck Austin Place

Yakima Housing Authority

Project Overview	
Development Type	Multi-family
Property Size (acres)	4.85
Housing Units	41
Total New Building Footprint	12,600 sf
Existing Building Footprint	27,300 sf

Cleanup Metrics	Quantity	Percent of Property
Hard Capped Area	115,500 sf	55
Excavation and Soft Capped Area[(a)]	93,600 sf	45
Soil Capped Area	22,100 sf	11
Gravel Capped Area	71,500 sf	34

Clean Soil Source	
Soil Source	Caton Landfill
Distance from Property	17 miles or 29 min
Transportation Cost	$115/hr ≈ $3.80/ton

Material Needs	Quantity	Cost/Unit
Clean Soil	100 cy	$28/cy
Amendment	100 tons	$45/ton
Gravel	100 tons	$24/ton
Demarcation Fabric	71,500 sf	Not provided

NOTES:
cy = cubic yards
hr = hour
sf = square foot

[(a)] Excavated areas include underground stormwater infiltration basins. Soil and gravel capped areas were estimated based on Figure 2 from the Soil Remediation Report.

Residence Inn

Stream Real Estate

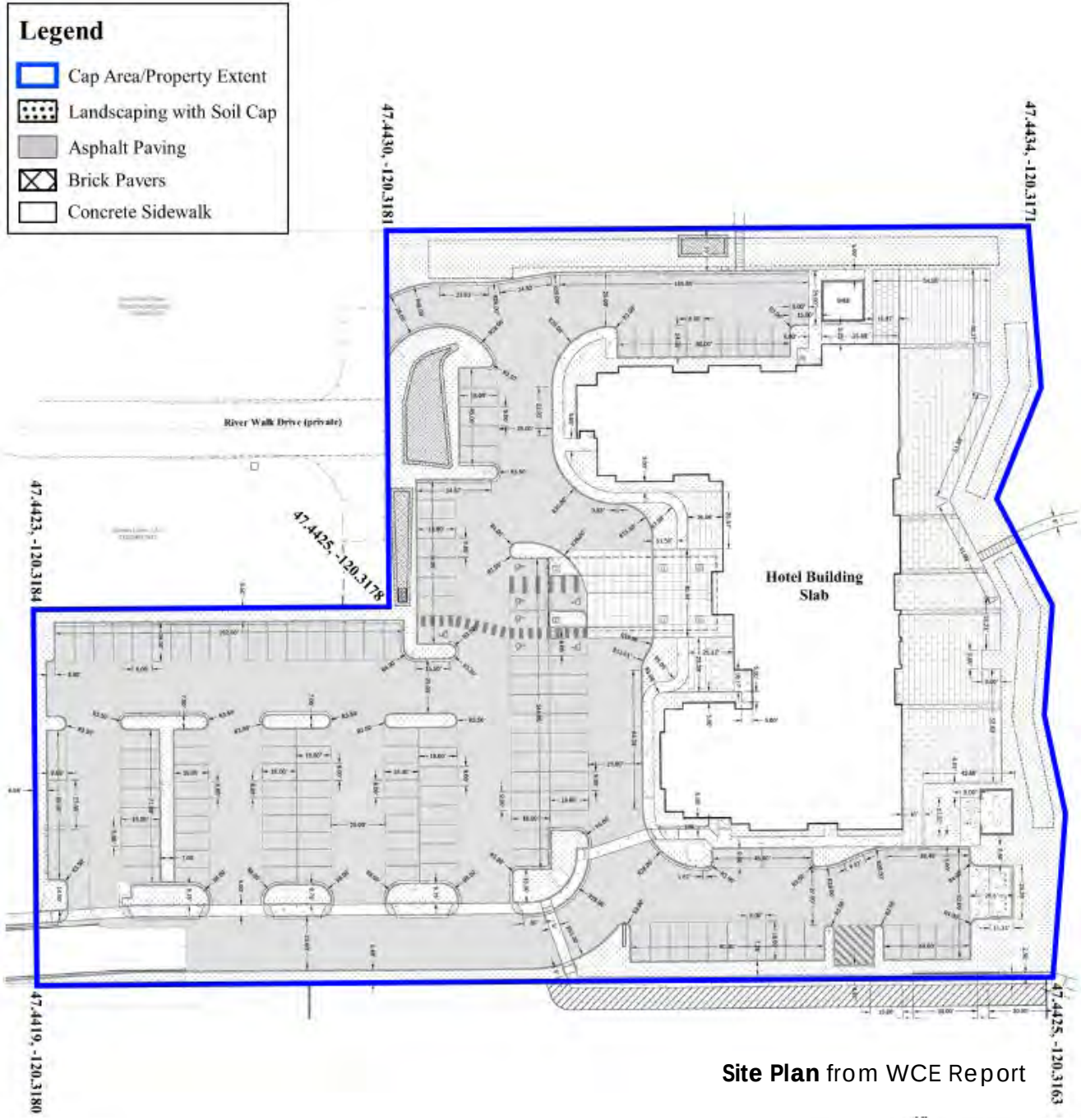
Project Overview	
Development Type	Commercial
Property Size (acres)	3.1

Cleanup Metrics	Quantity	Percent of Property
Total Excavation Area	0 sf	0
Total Hard Capped Area	128,284 sf	95
Total Soft Capped Area	6,752 sf	5

Clean Soil Source	
Soil Source	Winton Manufacturing
Distance from Property	35.1 miles or 46 minutes
Transportation Cost	Provided as lump sum with soil cost

Material Needs	Quantity	Cost/Unit/Comment
Clean Soil	1,598 cy	$39.38/cy including transport
Amendment	None	NA
Off-Site Soil Disposal	None	NA
Demarcation Fabric	6,752 sf	Not provided

NOTES:
cy = cubic yards
NA = not applicable
sf = square foot



Site Plan from WCE Report

Cameo Development

Talos Construction

Project Overview	
Development Type	Single-family
Property Size (acres)	5.01
Housing Units	20
Individual Lot Size	10,000 sf
Typical Building Footprint	Unknown

Cleanup Metrics	Quantity	Percent of Property
Hard Capped Area	120,030 sf	55
Soft Capped Area	98,200 sf	45

Clean Soil Source	
Soil Source	Lakeshore Excavation
Distance from Property	3 miles or 10 min
Transportation Cost	$10/cy

Material Needs	Quantity	Cost/Unit
Clean Soil	2,660 cy	$23.23/cy
Amendment	240 cy	$10/cy
Gravel	28 tons	$15.88/ton
Demarcation Fabric	118,650 sf	$0.17/sf

NOTES:
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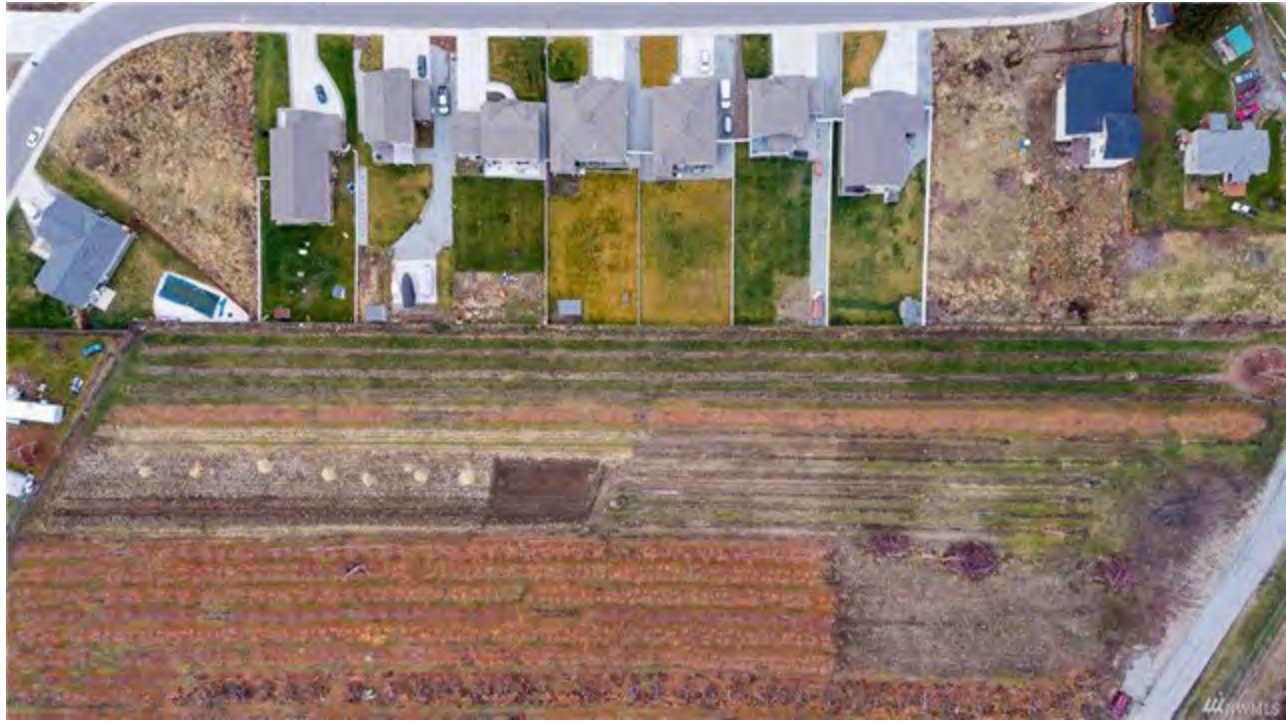
sf = square foot



Takeaways

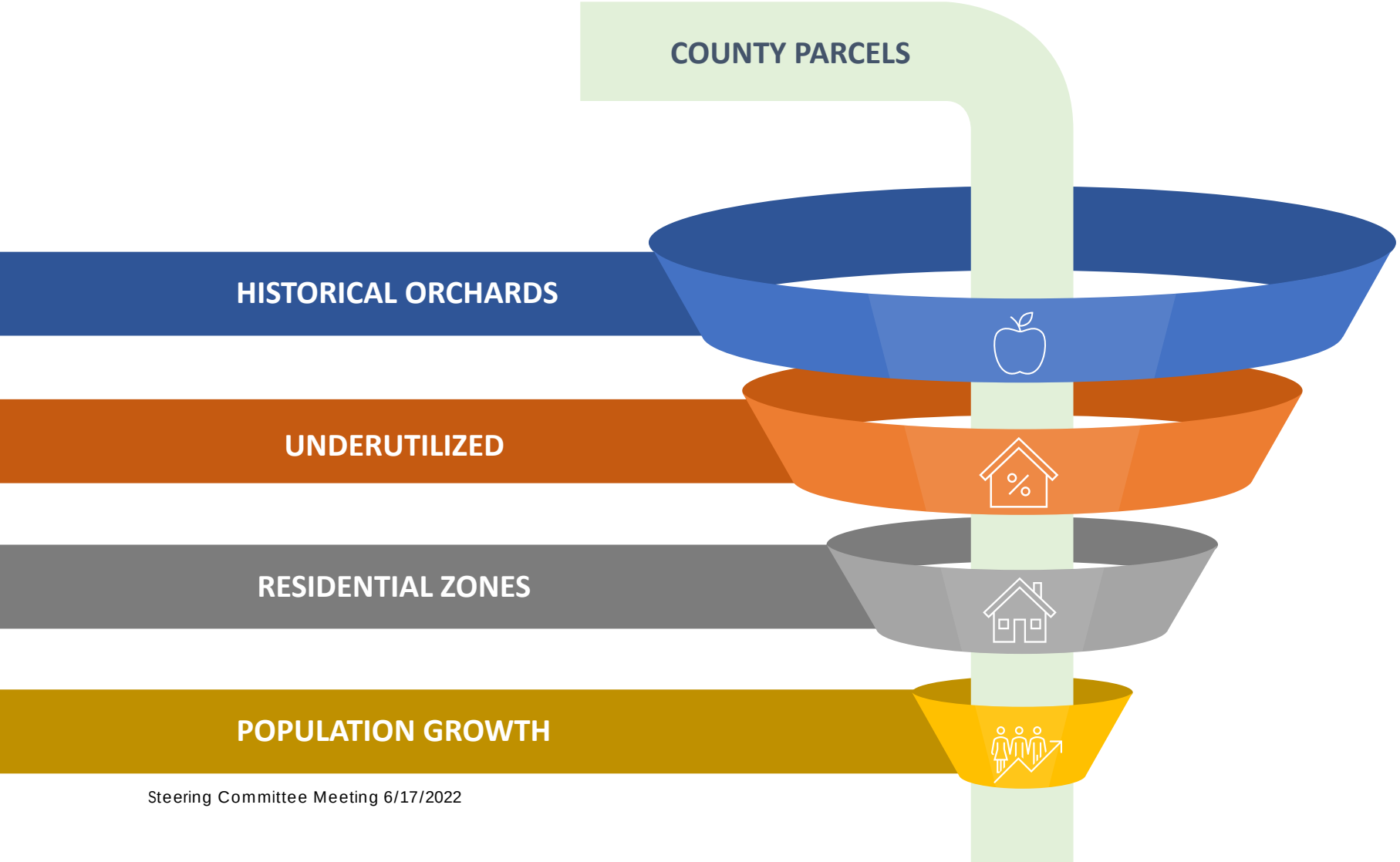
- Permitting/Review Process
  - Separate local and Ecology review
  - Assessment and cleanup triggers varied
    - Normal developer due diligence
    - SEPA
    - Funder required No Further Action letter (NFA)

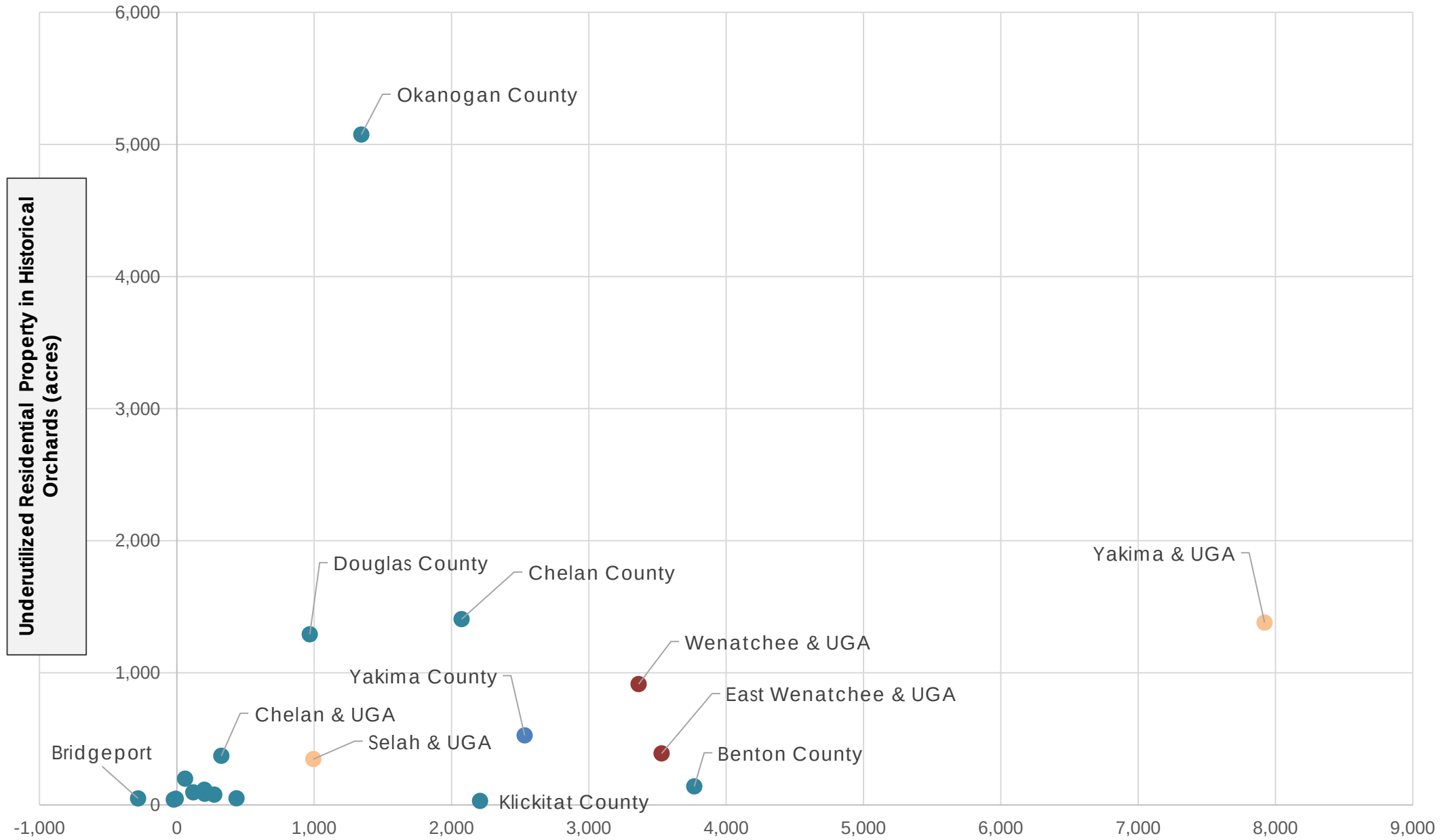
Takeaways

- Cleanup Approach
  - No offsite disposal of soil
  - Soil cost range: $10-39/CY w. transportation
  - Travel for soil averaged 15 miles
  - Soil capped area
    - Single family around 30-45%
    - Multifamily/Commercial 5-10%

GIS SOIL DEMAND ANALYSIS

GIS Analysis




Underutilized Residential Property in Historical Orchards (acres)
6,000
5,000
4,000
3,000
2,000
1,000
0
-1,000
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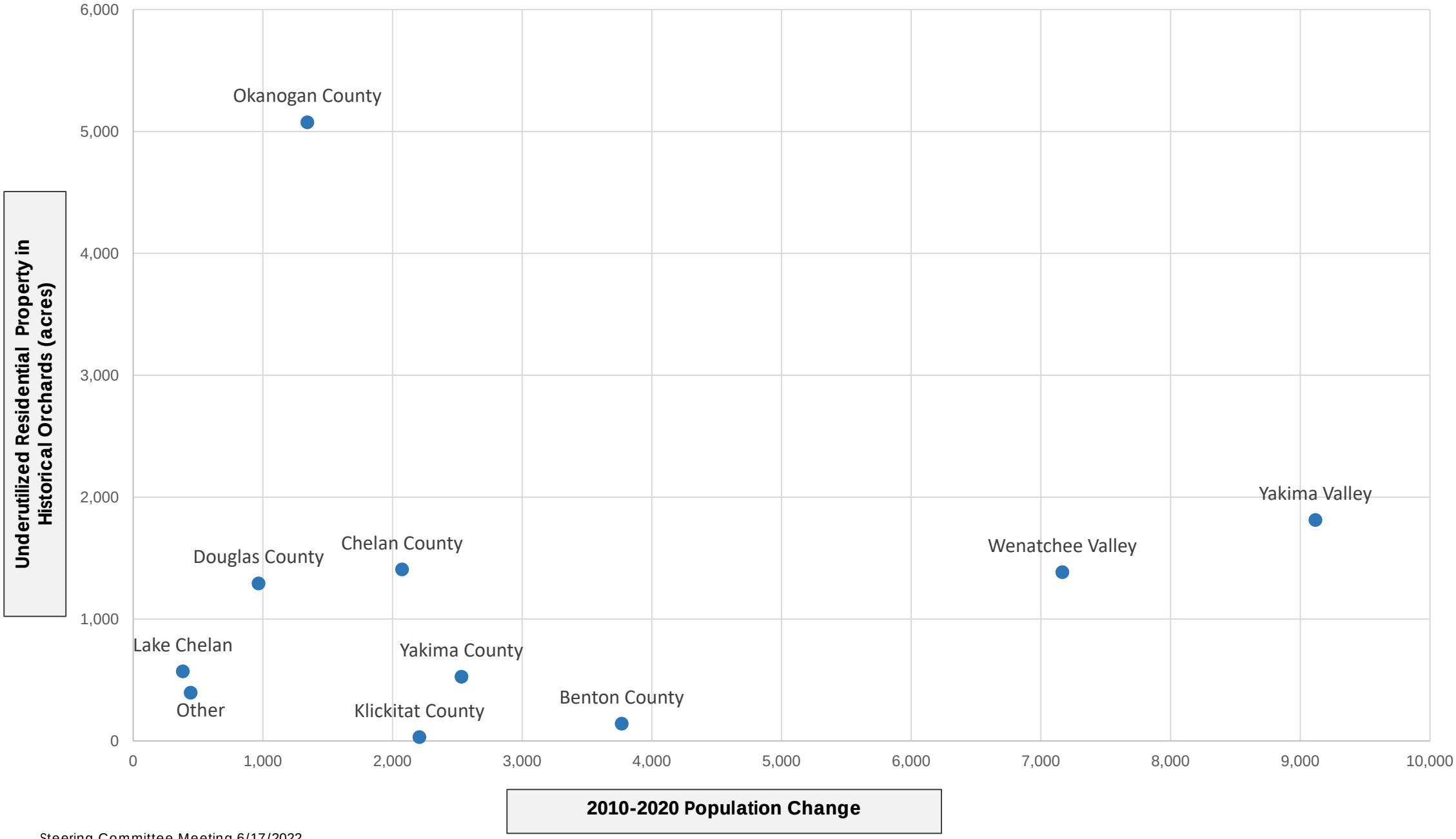
1,000
2,000
3,000
4,000
5,000
6,000
7,000
8,000
9,000
Okanogan County
Douglas County
Chelan County
Yakima & UGA
Wenatchee & UGA
Yakima County
East Wenatchee & UGA
Chelan & UGA
Selah & UGA
Bridgeport
Benton County
Klickitat County
2010-2020 Population Change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4,000
3,000
2,000
1,000
0
Okanogan County
Douglas County
Chelan County
Wenatchee Valley
Yakima Valley
Lake Chelan
Other
Yakima County
Klickitat County
Benton County
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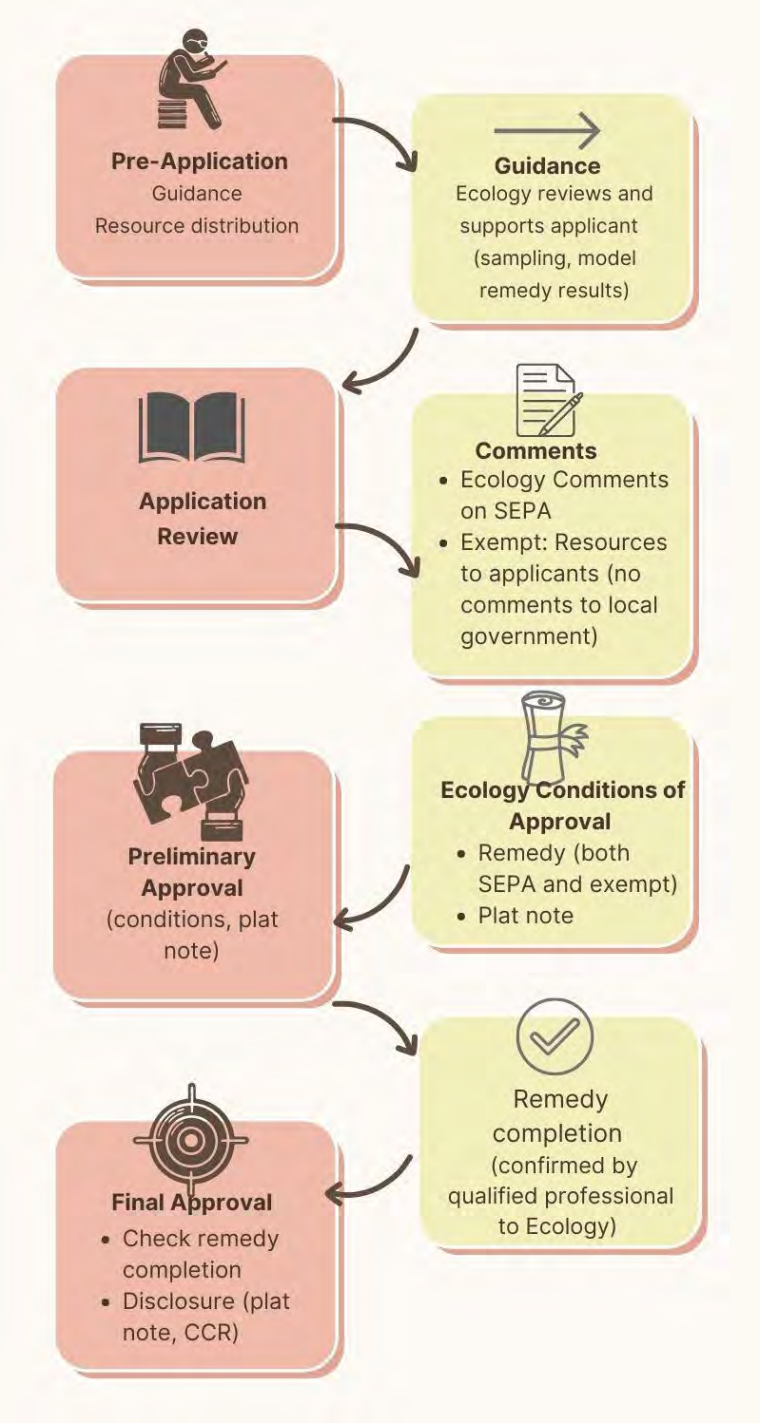
1,000
2,000
3,000
4,000
5,000
6,000
7,000
8,000
9,000
10,000
2010-2020 Population Change

PERMITTING & MODEL CODE DISCUSSION

Permit Process Example

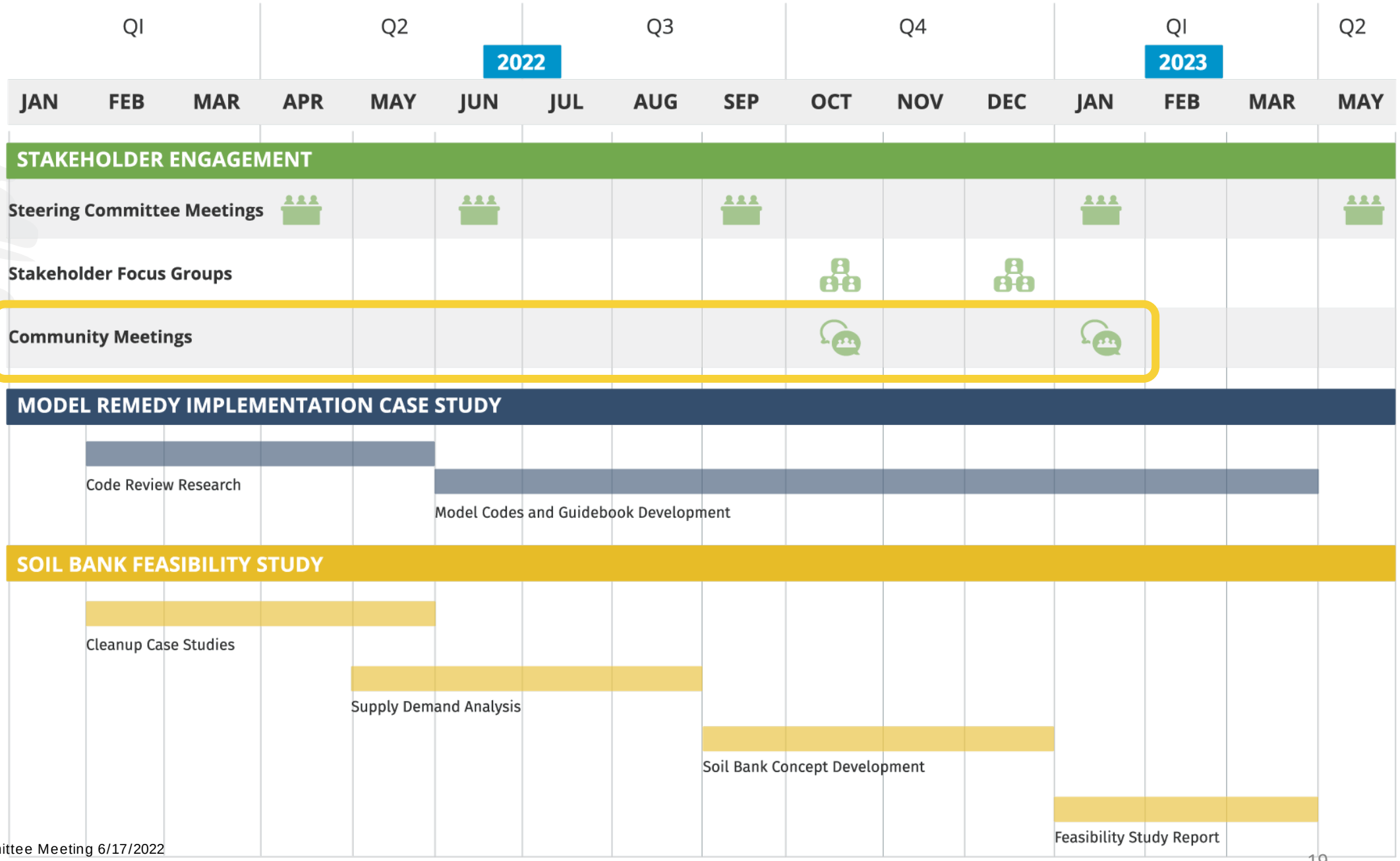
(LPWG Recommendations- Long Subdivision)



Model Code: Options and Framework

NEXT STEPS

Community Engagement Events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Community Event Goals

- Educate Public
  - Existing Homeowners: Mitigate Exposure and Risk
  - Developers: Cleanup and Review Processes
  - Planners: Review and Coordination with Ecology
- Tailored to Region
- Other goals?

Next Meeting

Friday, September 16
11:00am-12:30pm

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