

APPENDIX Q: VISUAL SIMULATIONS (REVISED)

Existing Conditions



Project Simulation Option 1
244 WTG



Project Simulation Option 2
150 WTG



Horse Heaven Wind Project



Figure 1
Representative Viewpoint 1
Existing Conditions
and Project Simulations

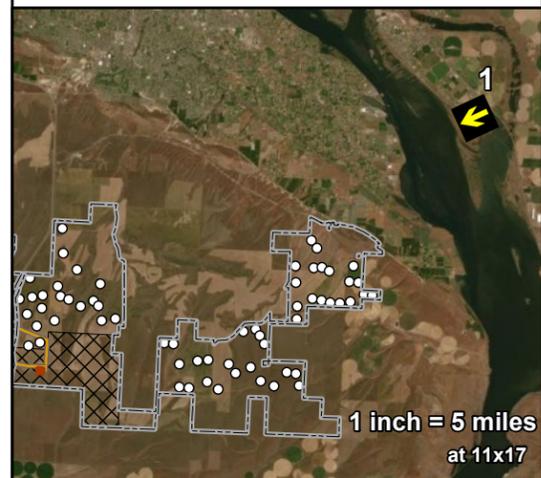
BENTON COUNTY, WA

-  Viewpoint Location and Photo Direction
-  Project Lease Boundary
-  Proposed Turbine Location
-  Proposed Substation/BESS
-  Proposed Transmission Line
-  Solar Siting Area

View direction (deg):	244
Horizontal field of view (deg):.....	75
Vertical field of view (deg):.....	20
Max. WTGs within field of view:...	244 / 150
Max. Visible WTGs at tip height:..	199 / 137
Max. Visible WTGs at hub height:..	148 / 107
Closest WTG (mi):.....	5.2 / 5.8
Furthest WTG (mi):.....	26.8 / 26.5
Closest Solar Array (mi):.....	No view
Closest Transmission Line (mi):.....	No view
Closest Substation / BESS (mi):..	No view

To approximate how the project will appear to a viewer in the natural setting, this sheet should be printed at 11 x 17 inches, full size with no scaling, and viewed at 6 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 6 inches from the eye.

NOT FOR CONSTRUCTION



Existing Conditions



Project Simulation Option 1
244 WTG



Project Simulation Option 2
150 WTG



Horse Heaven Wind Project



Figure 2
Representative Viewpoint 2a
Existing Conditions
and Project Simulations

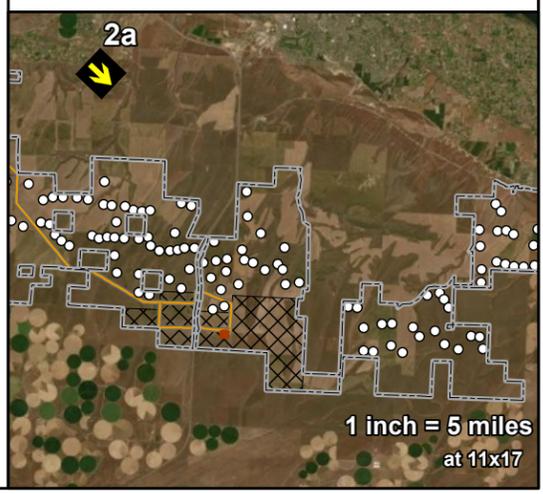
BENTON COUNTY, WA

- Viewpoint Location and Photo Direction
- Project Lease Boundary
- Proposed Turbine Location
- Proposed Substation/BESS
- Proposed Transmission Line
- Solar Siting Area

View direction (deg):	132
Horizontal field of view (deg):.....	57
Vertical field of view (deg):.....	15
Max. WTGs within field of view:...	75 / 38
Max. Visible WTGs at tip height:..	56 / 29
Max. Visible WTGs at hub height:	50 / 24
Closest WTG (mi):.....	3.9 / 4.8
Furthest WTG (mi):.....	13.4 / 13
Closest Solar Array (mi):.....	No view
Closest Transmission Line (mi):.....	No view
Closest Substation / BESS (mi):..	No view

To approximate how the project will appear to a viewer in the natural setting, this sheet should be printed at 11 x 17 inches, full size with no scaling, and viewed at 8 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 8 inches from the eye.

NOT FOR CONSTRUCTION



Existing Conditions



Project Simulation Option 1
244 WTG



Project Simulation Option 2
150 WTG



Horse Heaven Wind Project



Figure 3
Representative Viewpoint 2b
Existing Conditions
and Project Simulations

BENTON COUNTY, WA

- Viewpoint Location and Photo Direction
- Project Lease Boundary
- Proposed Turbine Location
- Proposed Substation/BESS
- Proposed Transmission Line
- Solar Siting Area

View direction (deg):	189
Horizontal field of view (deg):.....	57
Vertical field of view (deg):.....	15
Max. WTGs within field of view:...	37 / 19
Max. Visible WTGs at tip height:...	36 / 19
Max. Visible WTGs at hub height:...	30 / 17
Closest WTG (mi):.....	3 / 3.5
Furthest WTG (mi):.....	6.2 / 5.9
Closest Solar Array (mi):.....	No view
Closest Transmission Line (mi):.....	No view
Closest Substation / BESS (mi):...	No view

To approximate how the project will appear to a viewer in the natural setting, this sheet should be printed at 11 x 17 inches, full size with no scaling, and viewed at 8 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 8 inches from the eye.

NOT FOR CONSTRUCTION



Existing Conditions



Project Simulation Option 1
244 WTG



Project Simulation Option 2
150 WTG



**Horse Heaven
Wind Project**



**Figure 4
Representative Viewpoint 2c
Existing Conditions
and Project Simulations**

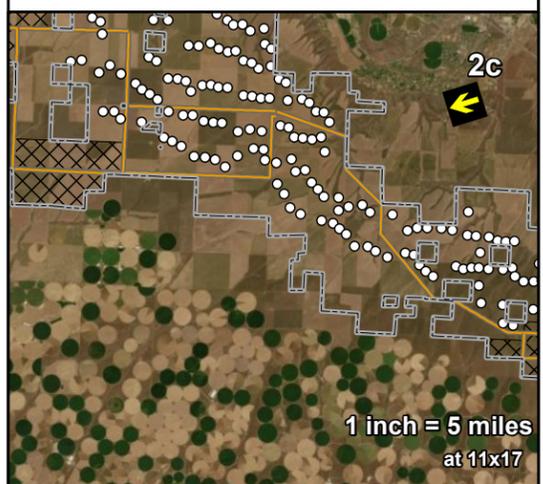
BENTON COUNTY, WA

-  Viewpoint Location and Photo Direction
-  Project Lease Boundary
-  Proposed Turbine Location
-  Proposed Transmission Line
-  Solar Siting Area

View direction (deg):	251
Horizontal field of view (deg):.....	56
Vertical field of view (deg):.....	15
Max. WTGs within field of view:...	85 / 60
Max. Visible WTGs at tip height:..	46 / 39
Max. Visible WTGs at hub height:	24 / 21
Closest WTG (mi):.....	3.7 / 3.7
Furthest WTG (mi):.....	10.8 / 10.8
Closest Solar Array (mi):.....	No view
Closest Transmission Line (mi):.....	3.4
Closest Substation / BESS (mi):...	No view

To approximate how the project will appear to a viewer in the natural setting, this sheet should be printed at 11 x 17 inches, full size with no scaling, and viewed at 8 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 8 inches from the eye.

NOT FOR CONSTRUCTION



Existing Conditions



Project Simulation Option 1
244 WTG



Project Simulation Option 2
150 WTG



Horse Heaven Wind Project



Figure 5
Representative Viewpoint 3
Existing Conditions
and Project Simulations

BENTON COUNTY, WA

-  Viewpoint Location and Photo Direction
-  Project Lease Boundary
-  Proposed Turbine Location
-  Proposed Substation/BESS
-  Proposed Transmission Line
-  Solar Siting Area

View direction (deg):	128
Horizontal field of view (deg):.....	56
Vertical field of view (deg):.....	15
Max. WTGs within field of view:...	244 / 150
Max. Visible WTGs at tip height:...	239 / 150
Max. Visible WTGs at hub height:...	219 / 139
Closest WTG (mi):.....	2.5 / 2.8
Furthest WTG (mi):.....	28.1 / 27.6
Closest Solar Array (mi):.....	2.1
Closest Transmission Line (mi):.....	4.2
Closest Substation / BESS (mi):..	Not in frame

To approximate how the project will appear to a viewer in the natural setting, this sheet should be printed at 11 x 17 inches, full size with no scaling, and viewed at 8 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 8 inches from the eye.

NOT FOR CONSTRUCTION



Existing Conditions



Project Simulation Option 1
244 WTG



Project Simulation Option 2
150 WTG



**Horse Heaven
Wind Project**



**Figure 6
Representative Viewpoint 4a
Existing Conditions
and Project Simulations**

BENTON COUNTY, WA

-  Viewpoint Location and Photo Direction
-  Project Lease Boundary
-  Proposed Turbine Location
-  Proposed Substation/BESS
-  Proposed Transmission Line
-  Solar Siting Area

View direction (deg):	350
Horizontal field of view (deg):.....	57
Vertical field of view (deg):.....	15
Max. WTGs within field of view:...	163 / 110
Max. Visible WTGs at tip height:..	51 / 40
Max. Visible WTGs at hub height:	34 / 26
Closest WTG (mi):.....	7.3 / 7.3
Furthest WTG (mi):.....	19.6 / 19.4
Closest Solar Array (mi):.....	Not in frame
Closest Transmission Line (mi):.....	6.5
Closest Substation / BESS (mi):..	Not in frame

To approximate how the project will appear to a viewer in the natural setting, this sheet should be printed at 11 x 17 inches, full size with no scaling, and viewed at 8 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 8 inches from the eye.

NOT FOR CONSTRUCTION



Existing Conditions



Project Simulation Option 1
244 WTG



Project Simulation Option 2
150 WTG



Horse Heaven Wind Project



Figure 7
Representative Viewpoint 4b
Existing Conditions
and Project Simulations

BENTON COUNTY, WA

- Viewpoint Location and Photo Direction
- Project Lease Boundary
- Proposed Turbine Location
- Proposed Substation/BESS
- Proposed Transmission Line
- Solar Siting Area

View direction (deg):	46
Horizontal field of view (deg):.....	57
Vertical field of view (deg):.....	15
Max. WTGs within field of view:...	85 / 42
Max. Visible WTGs at tip height:..	66 / 37
Max. Visible WTGs at hub height:	58 / 33
Closest WTG (mi):.....	7 / 7.3
Furthest WTG (mi):.....	16.2 / 15.6
Closest Solar Array (mi):.....	6.0
Closest Transmission Line (mi):.....	6.5
Closest Substation / BESS (mi):..	7.3

To approximate how the project will appear to a viewer in the natural setting, this sheet should be printed at 11 x 17 inches, full size with no scaling, and viewed at 8 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 8 inches from the eye.

NOT FOR CONSTRUCTION



Existing Conditions



Project Simulation Option 1
244 WTG



Project Simulation Option 2
150 WTG



**Horse Heaven
Wind Project**



**Figure 8
Representative Viewpoint 5
Existing Conditions
and Project Simulations**

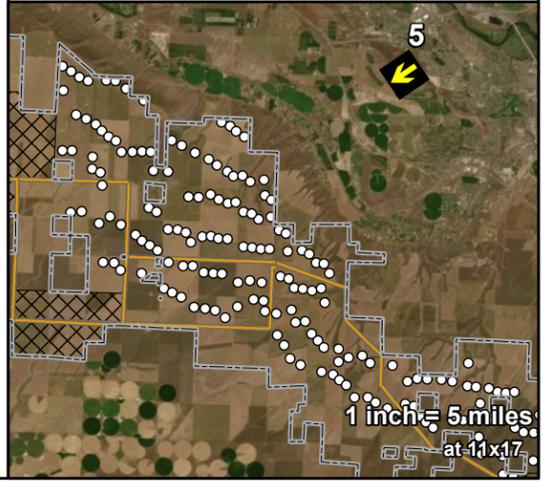
BENTON COUNTY, WA

-  Viewpoint Location and Photo Direction
-  Project Lease Boundary
-  Proposed Turbine Location
-  Proposed Transmission Line
-  Solar Siting Area

View direction (deg):	236
Horizontal field of view (deg):.....	58
Vertical field of view (deg):.....	15
Max. WTGs within field of view:...	101 / 76
Max. Visible WTGs at tip height:...	101 / 76
Max. Visible WTGs at hub height:...	101 / 76
Closest WTG (mi):.....	4.7 / 4.7
Furthest WTG (mi):.....	9.9 / 9.8
Closest Solar Array (mi):.....	No view
Closest Transmission Line (mi):.....	No view
Closest Substation / BESS (mi):...	No view

To approximate how the project will appear to a viewer in the natural setting, this sheet should be printed at 11 x 17 inches, full size with no scaling, and viewed at 8 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 8 inches from the eye.

NOT FOR CONSTRUCTION 



Existing Conditions



Project Simulation Option 1
244 WTG



Project Simulation Option 2
150 WTG



Horse Heaven Wind Project



Figure 9 Representative Viewpoint 6 Existing Conditions and Project Simulations

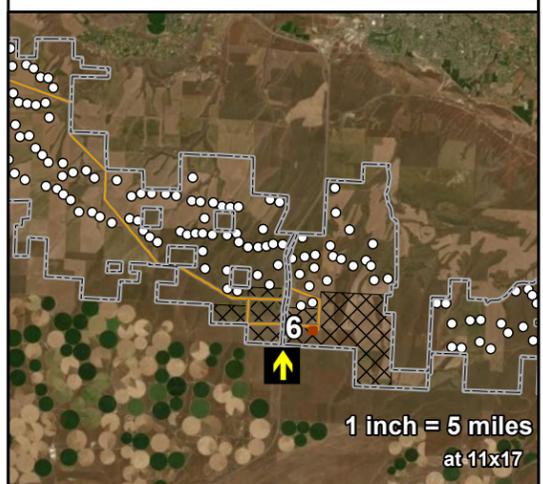
BENTON COUNTY, WA

- Viewpoint Location and Photo Direction
- Project Lease Boundary
- Proposed Turbine Location
- Proposed Substation/BESS
- Proposed Transmission Line
- Solar Siting Area

View direction (deg):	360
Horizontal field of view (deg):.....	60
Vertical field of view (deg):.....	15
Max. WTGs within field of view:...	41 / 17
Max. Visible WTGs at tip height:..	37 / 17
Max. Visible WTGs at hub height:..	29 / 17
Closest WTG (mi):.....	1.7 / 1.8
Furthest WTG (mi):.....	5.7 / 5
Closest Solar Array (mi):.....	0.6
Closest Transmission Line (mi):.....	1.2
Closest Substation / BESS (mi):..	Not in frame

To approximate how the project will appear to a viewer in the natural setting, this sheet should be printed at 11 x 17 inches, full size with no scaling, and viewed at 8 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 8 inches from the eye.

NOT FOR CONSTRUCTION



Existing Conditions



Project Simulation Option 1
244 WTG



Project Simulation Option 2
150 WTG



Horse Heaven Wind Project



Figure 10
Representative Viewpoint 7
Existing Conditions
and Project Simulations

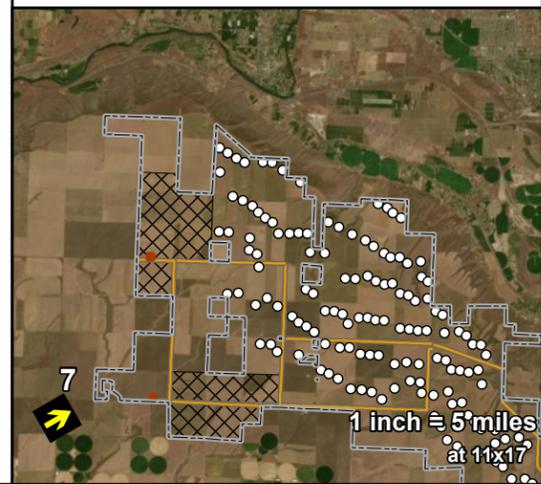
BENTON COUNTY, WA

-  Viewpoint Location and Photo Direction
-  Project Lease Boundary
-  Proposed Turbine Location
-  Proposed Substation/BESS
-  Proposed Transmission Line
-  Solar Siting Area

View direction (deg):	60
Horizontal field of view (deg):.....	58
Vertical field of view (deg):.....	15
Max. WTGs within field of view:...	122 / 90
Max. Visible WTGs at tip height:..	118 / 87
Max. Visible WTGs at hub height:..	110 / 85
Closest WTG (mi):.....	5.8 / 5.8
Furthest WTG (mi):.....	11.9 / 11.8
Closest Solar Array (mi):.....	3.1
Closest Transmission Line (mi):.....	2.2
Closest Substation / BESS (mi):..	No view

To approximate how the project will appear to a viewer in the natural setting, this sheet should be printed at 11 x 17 inches, full size with no scaling, and viewed at 8 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 8 inches from the eye.

NOT FOR CONSTRUCTION



Existing Conditions



Project Simulation Option 1
244 WTG



Project Simulation Option 2
150 WTG



Horse Heaven Wind Project



Figure 11
Representative Viewpoint 8a
Existing Conditions
and Project Simulations

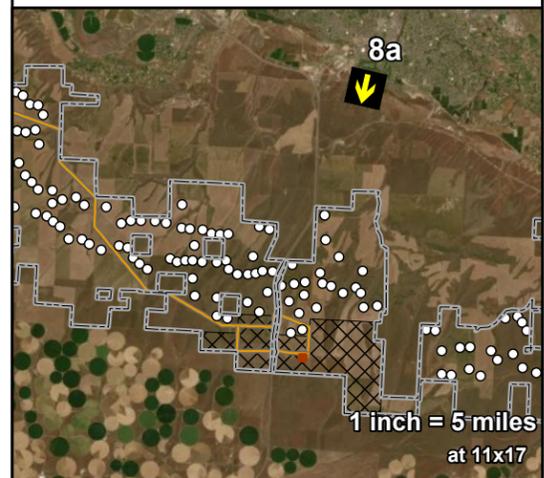
BENTON COUNTY, WA

-  Viewpoint Location and Photo Direction
-  Project Lease Boundary
-  Proposed Turbine Location
-  Proposed Substation/BESS
-  Proposed Transmission Line
-  Solar Siting Area

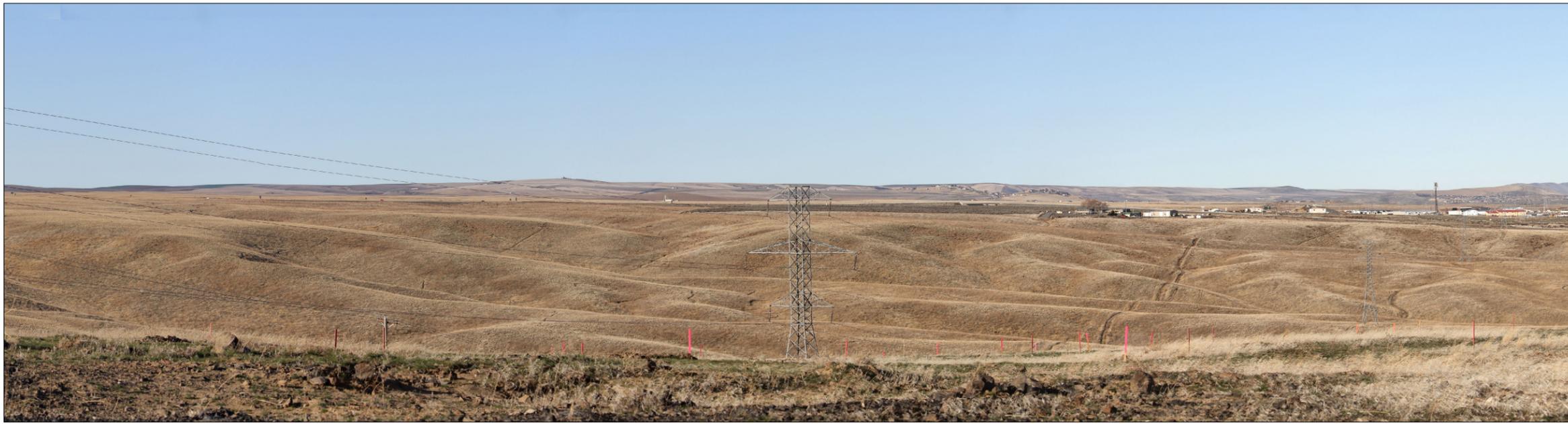
View direction (deg):	193
Horizontal field of view (deg):.....	57
Vertical field of view (deg):.....	15
Max. WTGs within field of view:...	43 / 20
Max. Visible WTGs at tip height:...	40 / 19
Max. Visible WTGs at hub height:...	37 / 15
Closest WTG (mi):.....	3.6 / 5.4
Furthest WTG (mi):.....	7.4 / 7.3
Closest Solar Array (mi):.....	No view
Closest Transmission Line (mi):.....	No view
Closest Substation / BESS (mi):...	No view

To approximate how the project will appear to a viewer in the natural setting, this sheet should be printed at 11 x 17 inches, full size with no scaling, and viewed at 8 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 8 inches from the eye.

NOT FOR CONSTRUCTION



Existing Conditions



Project Simulation Option 1
244 WTG



Project Simulation Option 2
150 WTG



**Horse Heaven
Wind Project**



**Figure 12
Representative Viewpoint 8b
Existing Conditions
and Project Simulations**

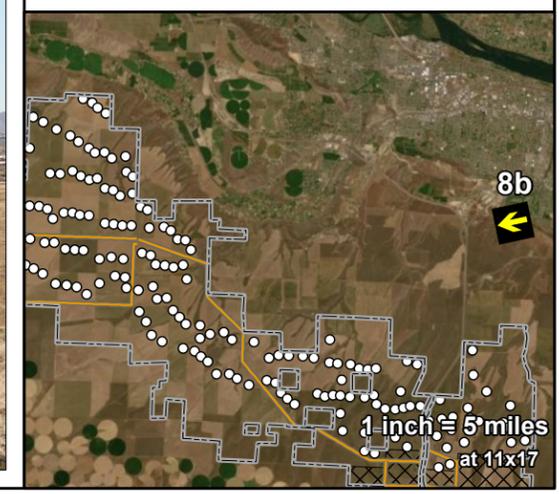
BENTON COUNTY, WA

- Viewpoint Location and Photo Direction
- Project Lease Boundary
- Proposed Turbine Location
- Proposed Transmission Line
- Solar Siting Area

View direction (deg):	258
Horizontal field of view (deg):.....	57
Vertical field of view (deg):.....	15
Max. WTGs within field of view:...	153 / 105
Max. Visible WTGs at tip height:..	137 / 101
Max. Visible WTGs at hub height:	102 / 83
Closest WTG (mi):.....	5.9 / 6.1
Furthest WTG (mi):.....	16.8 / 16.6
Closest Solar Array (mi):.....	No view
Closest Transmission Line (mi):.....	No view
Closest Substation / BESS (mi):..	No view

To approximate how the project will appear to a viewer in the natural setting, this sheet should be printed at 11 x 17 inches, full size with no scaling, and viewed at 8 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 8 inches from the eye.

NOT FOR CONSTRUCTION



Existing Conditions



Project Simulation Option 1
244 WTG



Project Simulation Option 2
150 WTG



Horse Heaven
Wind Project



Figure 13
Representative Viewpoint 9
Existing Conditions
and Project Simulations

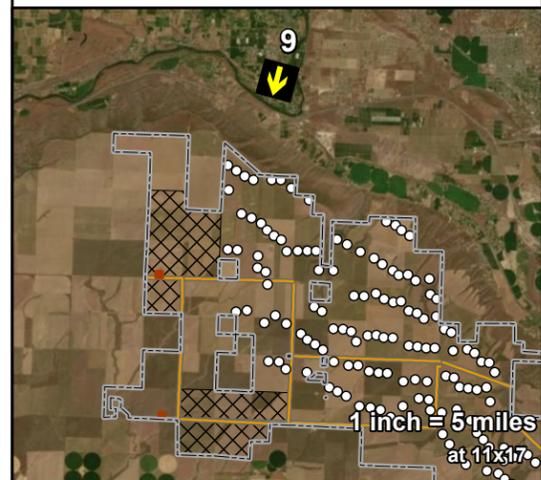
BENTON COUNTY, WA

-  Viewpoint Location and Photo Direction
-  Project Lease Boundary
-  Proposed Turbine Location
-  Proposed Substation/BESS
-  Proposed Transmission Line
-  Solar Siting Area

View direction (deg):	195
Horizontal field of view (deg):.....	73
Vertical field of view (deg):.....	19
Max. WTGs within field of view:...	61 / 47
Max. Visible WTGs at tip height:...	5 / 5
Max. Visible WTGs at hub height:...	4 / 4
Closest WTG (mi):.....	2.7 / 2.7
Furthest WTG (mi):.....	9.7 / 9.6
Closest Solar Array (mi):.....	No view
Closest Transmission Line (mi):.....	No view
Closest Substation / BESS (mi):...	No view

To approximate how the project will appear to a viewer in the natural setting, this sheet should be printed at 11 x 17 inches, full size with no scaling, and viewed at 6 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 6 inches from the eye.

NOT FOR CONSTRUCTION



Existing Conditions



Project Simulation Option 1
244 WTG



Project Simulation Option 2
150 WTG



Horse Heaven Wind Project



Figure 14
Representative Viewpoint 10
Existing Conditions
and Project Simulations

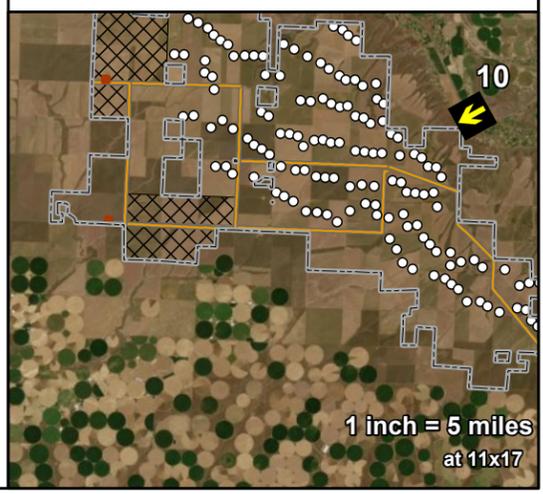
BENTON COUNTY, WA

-  Viewpoint Location and Photo Direction
-  Project Lease Boundary
-  Proposed Turbine Location
-  Proposed Substation/BESS
-  Proposed Transmission Line
-  Solar Siting Area

View direction (deg):	241
Horizontal field of view (deg):.....	76
Vertical field of view (deg):.....	20
Max. WTGs within field of view:...	79 / 59
Max. Visible WTGs at tip height:...	15 / 15
Max. Visible WTGs at hub height:...	9 / 7
Closest WTG (mi):.....	1.5 / 1.5
Furthest WTG (mi):.....	6.6 / 6.6
Closest Solar Array (mi):.....	No view
Closest Transmission Line (mi):.....	No view
Closest Substation / BESS (mi):...	No view

To approximate how the project will appear to a viewer in the natural setting, this sheet should be printed at 11 x 17 inches, full size with no scaling, and viewed at 6 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 6 inches from the eye.

NOT FOR CONSTRUCTION



Existing Conditions



Project Simulation Option 1
244 WTG



Project Simulation Option 2
150 WTG



Horse Heaven Wind Project



Figure 15
Representative Viewpoint 11
Existing Conditions and Project Simulations

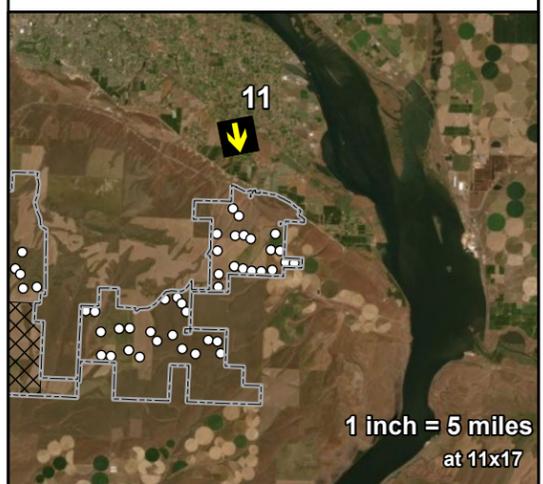
BENTON COUNTY, WA

-  Viewpoint Location and Photo Direction
-  Project Lease Boundary
-  Proposed Turbine Location
-  Solar Siting Area

View direction (deg):	169
Horizontal field of view (deg):.....	73
Vertical field of view (deg):.....	19
Max. WTGs within field of view:...	33 / 47
Max. Visible WTGs at tip height:..	23 / 12
Max. Visible WTGs at hub height:	19 / 11
Closest WTG (mi):.....	2 / 2.5
Furthest WTG (mi):.....	6.6 / 6.6
Closest Solar Array (mi):.....	No view
Closest Transmission Line (mi):.....	No view
Closest Substation / BESS (mi):...	No view

To approximate how the project will appear to a viewer in the natural setting, this sheet should be printed at 11 x 17 inches, full size with no scaling, and viewed at 6 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 6 inches from the eye.

NOT FOR CONSTRUCTION



Existing Conditions



Project Simulation Option 1
244 WTG



Project Simulation Option 2
150 WTG



**Horse Heaven
Wind Project**



**Figure 16
Representative Viewpoint 12
Existing Conditions
and Project Simulations**

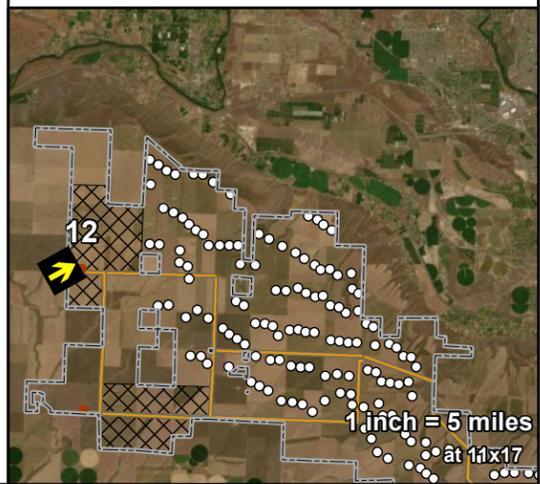
BENTON COUNTY, WA

- Viewpoint Location and Photo Direction
- Project Lease Boundary
- Proposed Turbine Location
- Proposed Substation/BESS
- Proposed Transmission Line
- Solar Siting Area

View direction (deg):	61
Horizontal field of view (deg):.....	73
Vertical field of view (deg):.....	19
Max. WTGs within field of view:...	57 / 40
Max. Visible WTGs at tip height:..	53 / 40
Max. Visible WTGs at hub height:	52 / 37
Closest WTG (mi):.....	2.5 / 2.5
Furthest WTG (mi):.....	8.7 / 8.6
Closest Solar Array (mi):.....	0.2
Closest Transmission Line (mi):.....	0.2
Closest Substation / BESS (mi):..	0.5

To approximate how the project will appear to a viewer in the natural setting, this sheet should be printed at 11 x 17 inches, full size with no scaling, and viewed at 6 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 6 inches from the eye.

NOT FOR CONSTRUCTION



Existing Conditions



Project Simulation Option 1
244 WTG



Project Simulation Option 2
150 WTG



**Horse Heaven
Wind Project**



**Figure 17
Representative Viewpoint 13
Existing Conditions
and Project Simulations**

BENTON COUNTY, WA

- Viewpoint Location and Photo Direction
- Project Lease Boundary
- Proposed Turbine Location
- Proposed Substation/BESS
- Proposed Transmission Line
- Solar Siting Area

View direction (deg):	18
Horizontal field of view (deg):.....	73
Vertical field of view (deg):.....	19
Max. WTGs within field of view:...	73 / 54
Max. Visible WTGs at tip height:..	69 / 52
Max. Visible WTGs at hub height:	65 / 51
Closest WTG (mi):.....	1.1 / 1.1
Furthest WTG (mi):.....	7.3 / 7.1
Closest Solar Array (mi):.....	Not in frame
Closest Transmission Line (mi):.....	0.2
Closest Substation / BESS (mi):..	No view

To approximate how the project will appear to a viewer in the natural setting, this sheet should be printed at 11 x 17 inches, full size with no scaling, and viewed at 6 inches from the eye. If viewed on a computer monitor, the document should be scaled at 100% and viewed at 6 inches from the eye.

NOT FOR CONSTRUCTION

