

Modernizing Four Forest Restoration Initiative Implementation - Progress



DxP and DxP+

FACT SHEET

October 29, 2019

- There is an urgent need to mitigate for wildfire risk by mechanically treating our forest landscape more efficiently and at an increased pace.



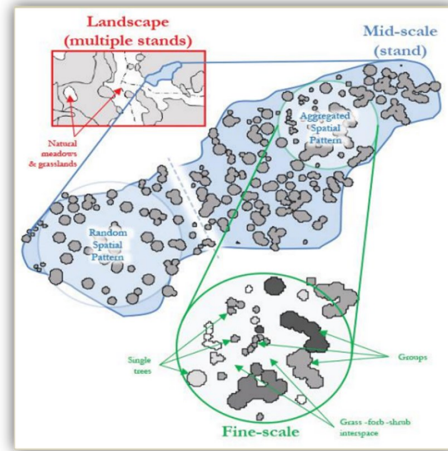
- We discussed how to meet the pace and scale needed by reducing time and cost of timber prep tasks by using DxP instead of paint.
- Stakeholders expressed concerns whether desired conditions would be met and whether operator productivity would be affected.



- We explored a digital guide as a solution and worked together to develop DxP+.



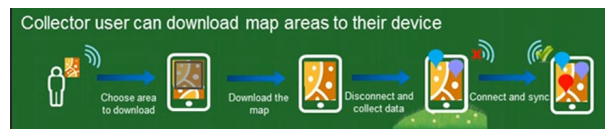
- We defined our restoration goals.



- We emphasized spatial targets in Rx for tree group size, % interspace, % regeneration openings, and cut unit basal area.

- Meet overall basal area target of 70-90 ft² BA/ac at the cut unit level
- Create groups of up to 1 acre averaging 0.1-0.5 ac in size
- Create interspace 60'-80' wide and comprising 40-55% of cut unit
- Create regeneration openings across 10% of cut unit

- We design data models in Arc Desktop, and collect and edit data using AGOL, and Collector on tablets.



- We confirmed that the DxP+ guide is within allowable limits for tree group size, % interspace, % regeneration openings, and cut unit basal area.

Unit	Unit Acres	SUM_GrpAcr	MEAN_GrpAc NO REGEN	MIN_GrpAc NO REGEN	MAX_GrpAc NO REGEN	STD_GrpAc NO REGEN	MEAN_Resid NO REGEN	STD_Resid BA NO REGEN	InterAcres	PerInter	Regen Acres	Regen Percent
6.00	329.88	189.92	0.51	0.04	2.06	0.28	84.57	24.15	139.96	42.43	50.51	15.31
7.00	80.22	51.52	0.34	0.01	0.93	0.16	86.31	22.02	28.70	35.77	10.24	12.77

- We collected DxP+ data using tablets with Arc Collector.



- We hit the desired conditions for tree groups, interspace, regeneration openings, and cut unit basal area.



- We got good feedback from operators.



- We installed tablet computers and a GPS antenna in the cab of harvest equipment, uploaded geo-referenced maps onto tablet computers, and conducted harvest operations using DxP+.

- We have lots of data that we can use to:
 - Enhance harvest operations.
 - Assess treatment outcomes.
 - Support compliance/accountability.
- Key points for implementation:
 - DxP can be successful when applied and inspected appropriately.
 - DxP+ improves achievement of desired conditions.
- Recommendations:
 - Consider remote sensing options for digitizing DxP+ tree group features.
 - Use external GPS to minimize spatial error.
 - Standardize data models.
 - Update directives to give clear guidance on going digital with sale prep tasks.

