

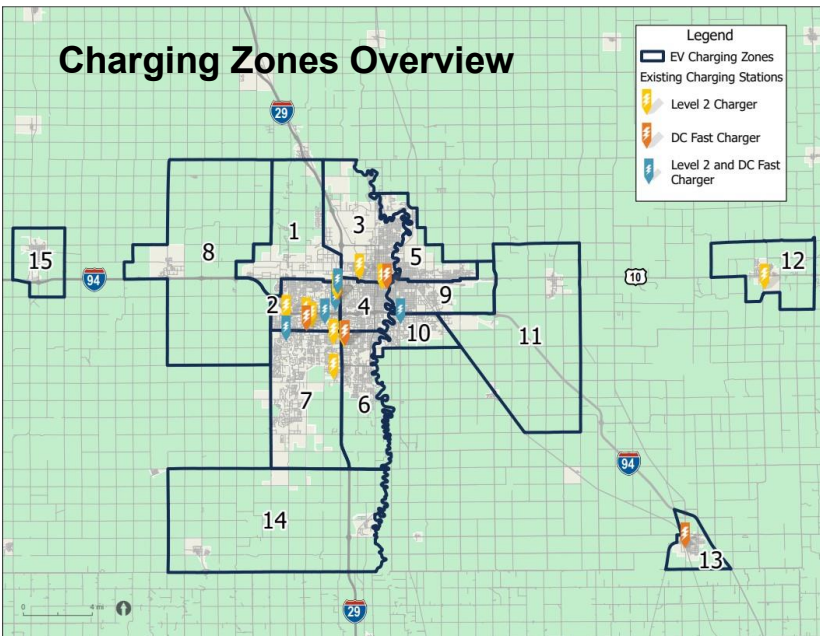
Strategies Workshop Results

Introduction

A hybrid in-person and virtual workshop was held on July 17th, 2024, to discuss potential strategies for the FMCOG EV Readiness Study. Fourteen people attended the workshop. One of the goals of the workshop was to identify high priority charging zones for future studies. This serves as a summary of that activity.





EV Charging Siting Activity

This activity was centered around siting EV charging stations based on charging type and land use. Previous analysis projected the number of EVs and subsequent ports required to support the EVs for horizon year 2035. A travel demand model was used to distribute these chargers based on travel patterns at the census block group level. This led to creation of charging zones (15 in total) by combining block groups, shown in the figure below.



Zone Number	L2 Ports	DCFC Ports	Includes Justice40 Census Tracts
1	157	6	Yes
2	624	47	Yes
3	563	21	Yes
4	341	17	Yes
5	78	4	Yes
6	142	8	No
7	202	15	No
8	7	0	No
9	233	10	No
10	62	6	No
11	11	0	No
12	11	0	No
13	12	0	No
14	10	0	No
15	18	0	No
Totals	2,471	134	

As part of this activity, participants placed dots for different charging types based on land use, differentiated by dot color. The dots were considered clusters of chargers given the scale of the maps and time constraints.

Community Use Charging		
 Yellow sticker	30 ports L2	Limit 18
Distance Destination		
 Red sticker	8 ports DCFC	Limit 4
Commercial Destination Cluster		
 Green sticker	8 ports DCFC	Limit 8
Workplace Destination Clusters		
 Blue sticker	10 ports L2 2 ports DCFC	Limit 20

Results

Combining the in-person and online results, there were 164 charging clusters placed across the region (split into four maps for the activity). Every zone had at least one charging location sited and all four charger types were sited. Overall, more DCFC ports were placed than what the analysis projects as needed. This was discussed as a group and one reason that come up was that DCFC charging locations are more likely to be in a public space, where some L2 ports (mainly workplace) would be on private property and the employer/landowner would be the one deciding to install charging.

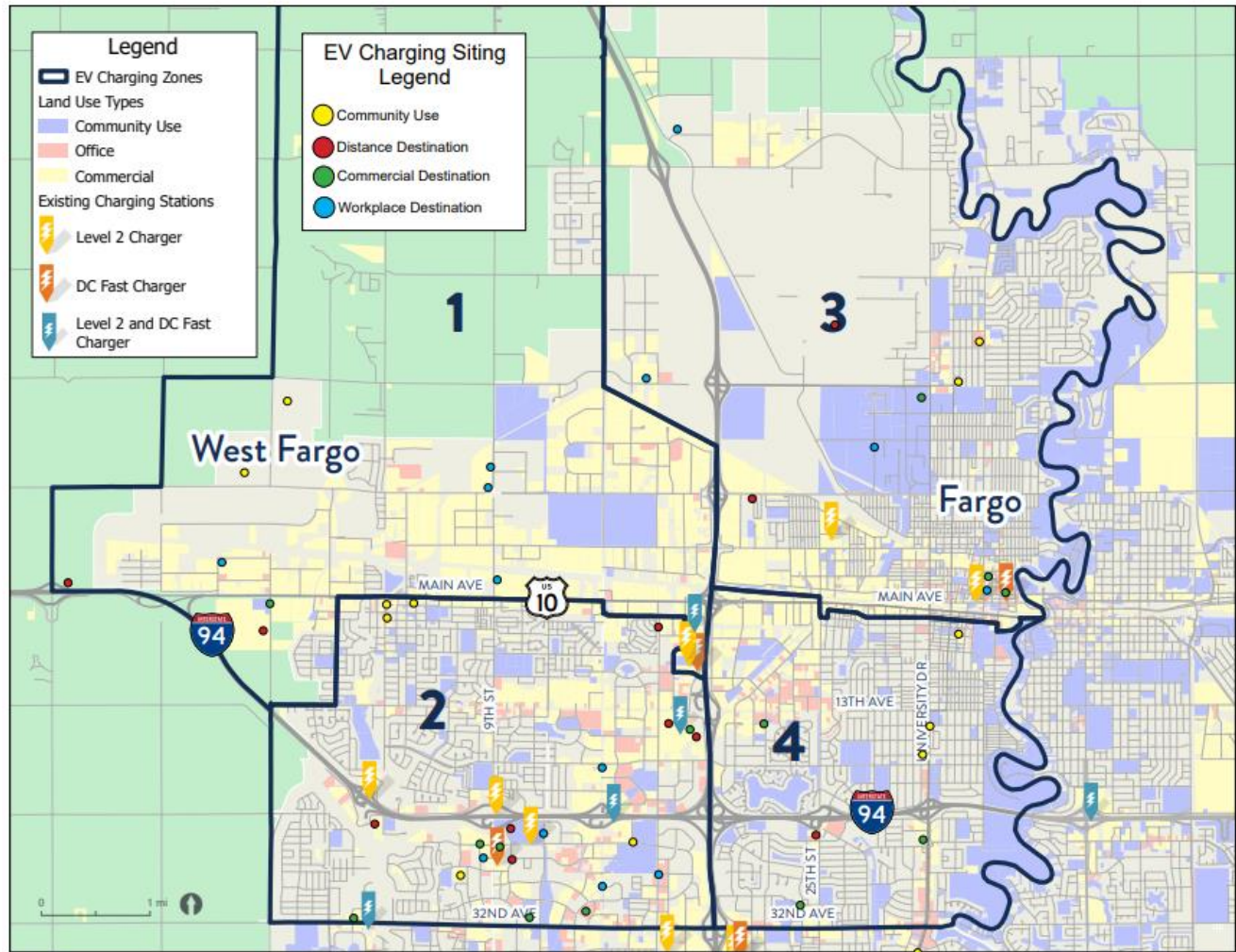
Charging Type	Dots Placed	L2 Ports per Dot	DCFC Ports per Dot	Total L2 Ports	Total DCFC Ports
Community Use	52	30	0	1,560	0
Distance Destination	26	0	8	0	208
Commercial Destination	44	0	8	0	352
Workplace Destination	42	10	2	420	20
Totals	164	-	-	1,980	580

The stations placed per map are shown in the figures below.

NORTH METRO

FARGO-MOORHEAD AREA EV
READINESS STRATEGIES WORKSHOP

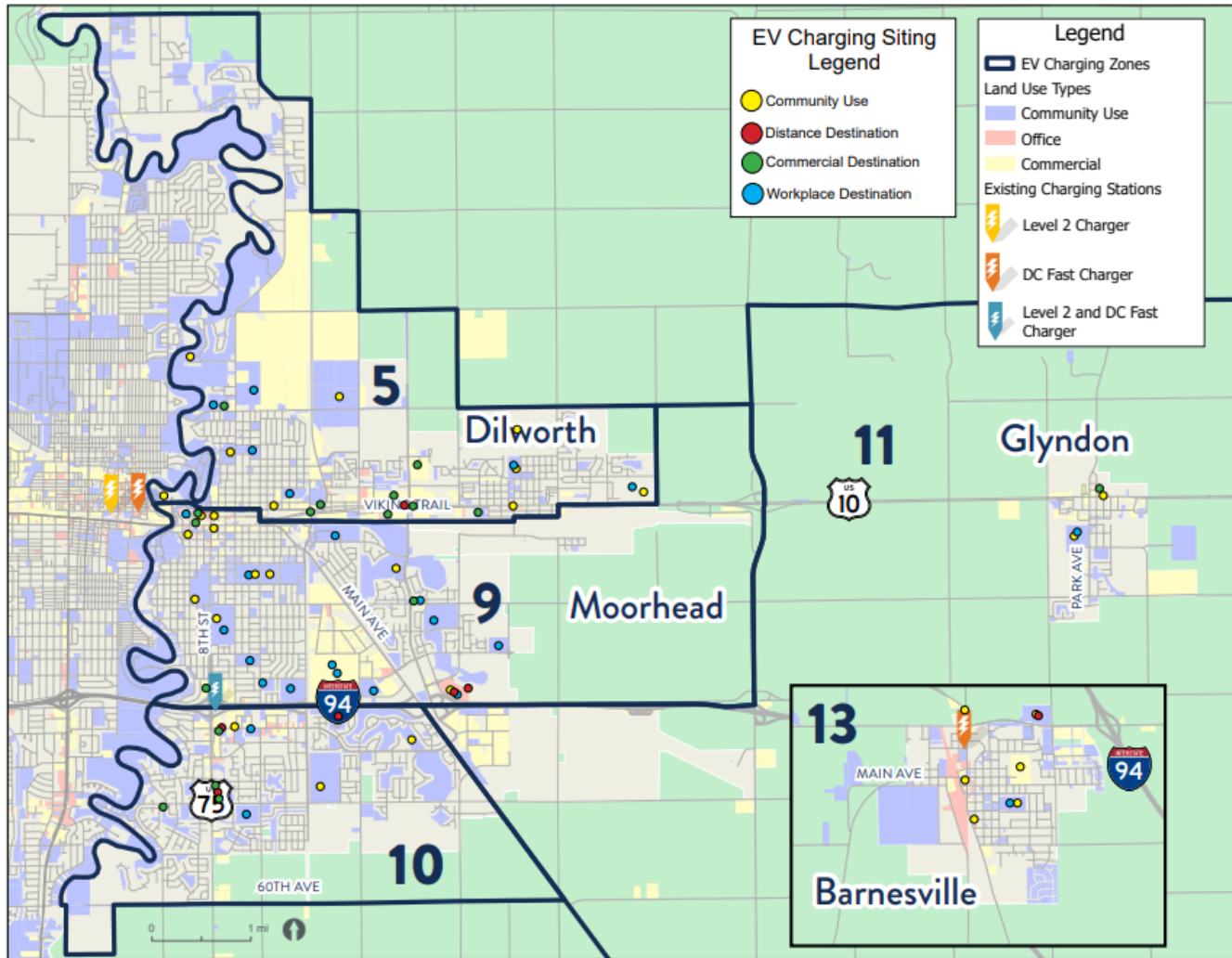
ZONE NUMBER	L2 PORTS	DCFC PORTS	INCLUDES JUSTICE40 CENSUS TRACTS?
1	157	6	Yes
2	624	47	Yes
3	563	21	Yes
4	341	17	Yes



MOORHEAD

FARGO-MOORHEAD AREA EV
READINESS STRATEGIES WORKSHOP

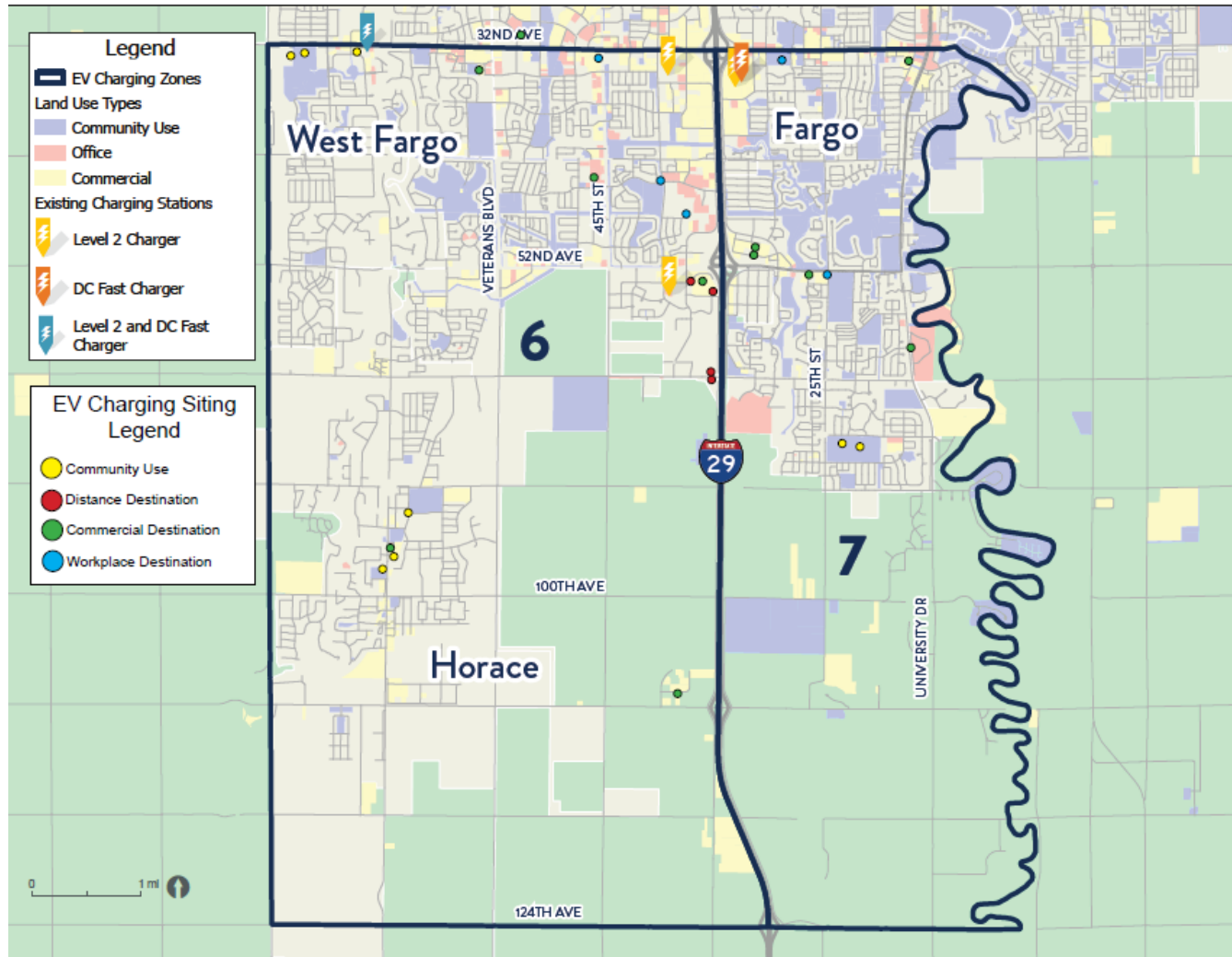
ZONE NUMBER	L2 PORTS	DCFC PORTS	INCLUDES JUSTICE40 CENSUS TRACTS?
5	78	4	Yes
9	233	10	No
10	62	6	No
11	11	0	No
13	12	0	No



SOUTH METRO

FARGO-MOORHEAD AREA EV
READINESS STRATEGIES WORKSHOP

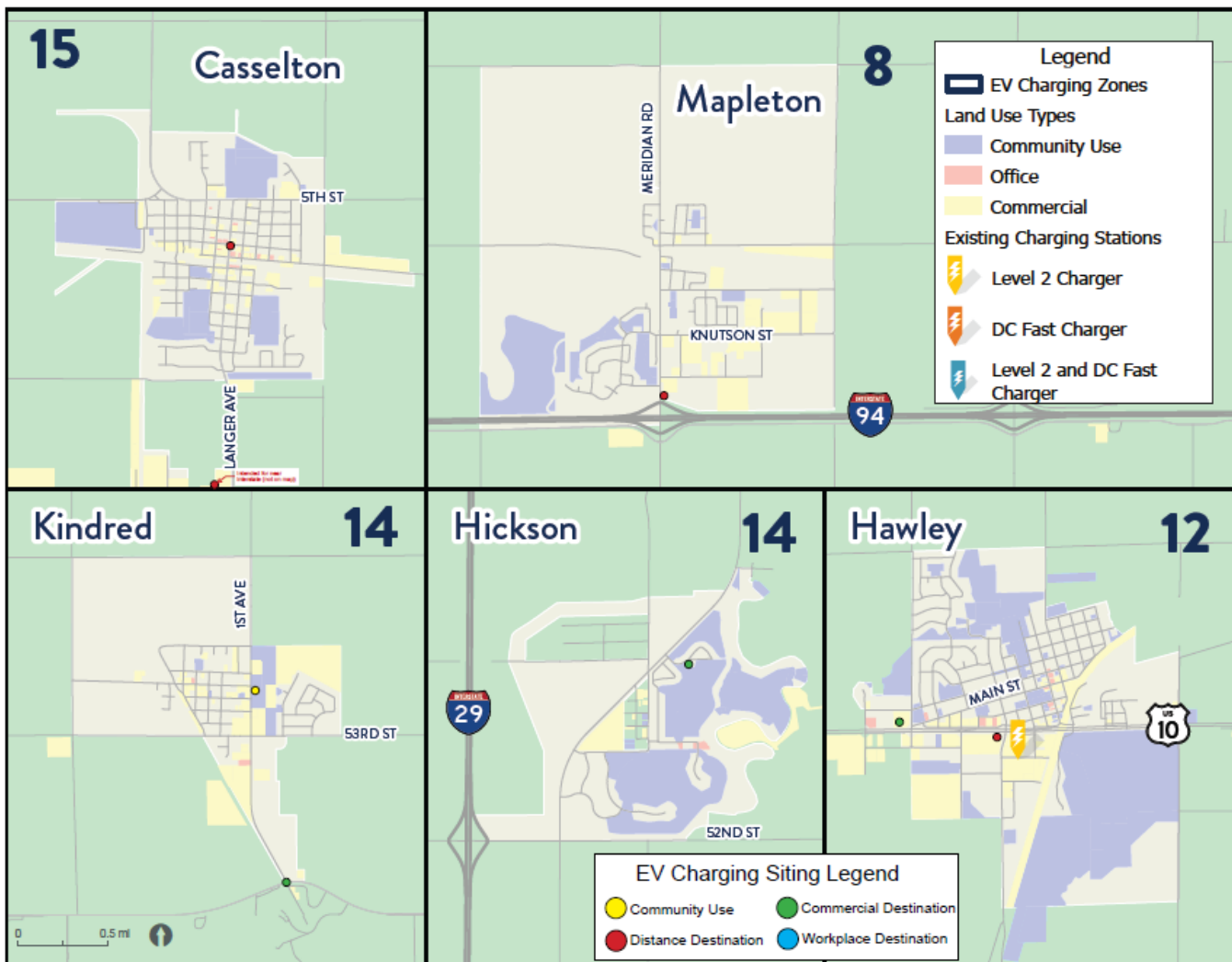
ZONE NUMBER	L2 PORTS	DCFC PORTS	INCLUDES JUSTICE40 CENSUS TRACTS?
6	142	8	No
7	202	15	No



SURROUNDING COMMUNITIES

FARGO-MOORHEAD AREA EV READINESS STRATEGIES WORKSHOP

ZONE NUMBER	L2 PORTS	DCFC PORTS	INCLUDES JUSTICE40 CENSUS TRACTS?
8	7	0	No
12	11	0	No
14	10	0	No
15	18	0	No



Next Steps

The EV charging siting maps will be shared with the public via the planned September 2024 virtual public engagement. The public will also have an opportunity to contribute their input to desired charging station locations and their agreement / feedback on the maps developed by our EV working group. In consideration of feedback from both the working group and the public – HDR will propose potential future studies or activities to move EV charger siting from system level planning to conceptual site design and deployment programming.