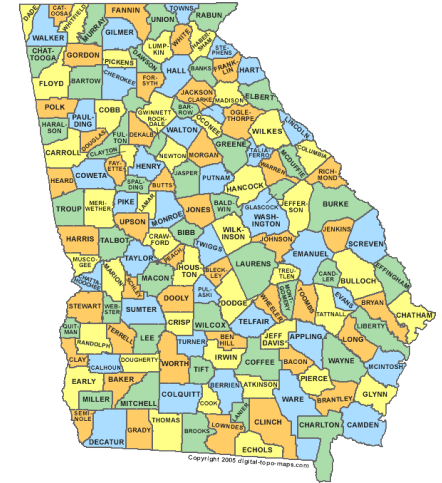


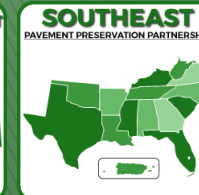
Georgia Successes With Pavement Preservation



NATIONAL PAVEMENT PRESERVATION CONFERENCE



MICHIGAN STATE
UNIVERSITY



Overview of GDOT preservation

- Why is GDOT set for success?
- What does GDOT do to promote preservation?
 - i. Analyzes different treatment selections already used by districts
 - ii. Investigates different treatments used by other states
 - iii. Utilizes asset management tools using real data to program treatments
 - iv. Develops internal training efforts

District Comparisons (1 & 5)

ITB funded contracts | No in-house activities | Excludes resurfacing projects

- Comparison 1: Overall Condition Index (OCI) vs Preservation spending
 - Segment specific OCI
- Comparison 2: Treatments
 - Spot based treatments vs. Broad based treatments
- Comparison 3: Optimization Tool
 - Preservation vs. no preservation in pavement management planning

What is an ITB?

In 2015 the Georgia Legislature passed the “Transportation Funding Act” (HB 170).

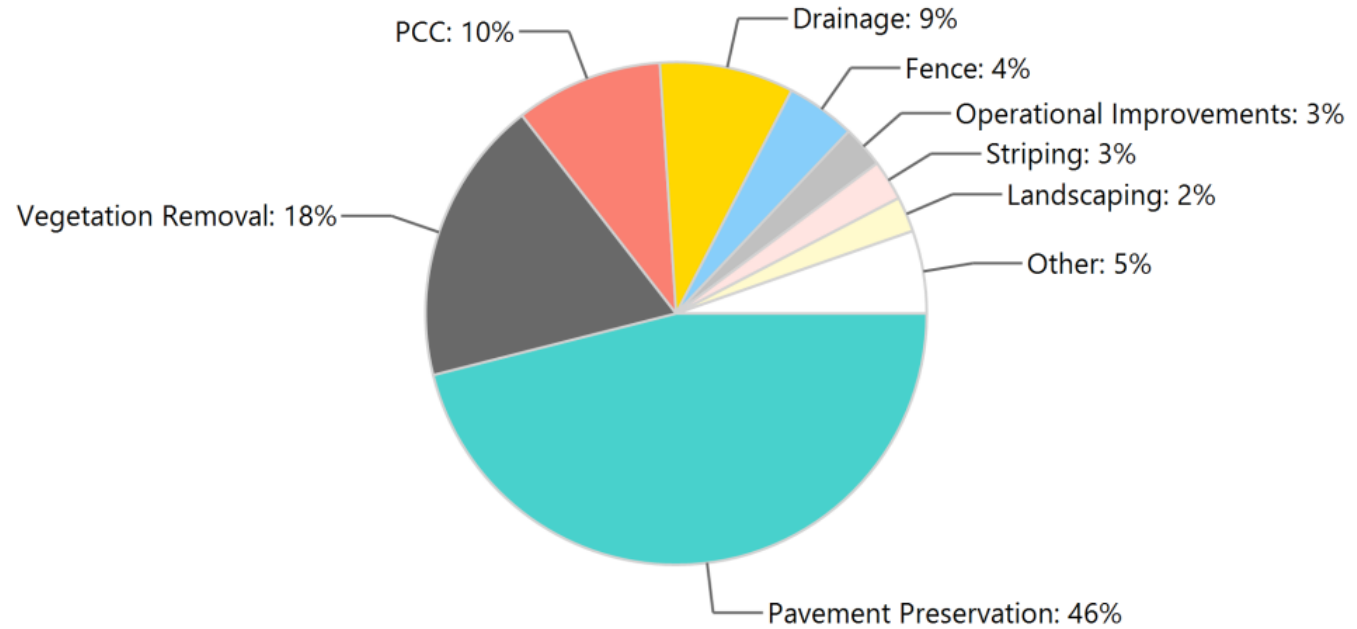
- Indexed gas–tax projected at \$11B to fund GDOT for 20 years
- GDOT created the “Invitation To Bid” and “Rapid Maintenance Response” contract process funded by HB 170 proceeds
- Provides additional contract resources to accomplish a variety of maintenance activities
- Excludes programmed resurfacing projects
- *(Program funding has dropped from \$118M in 2019 to \$87M in 2022 statewide)*

ITB Activities

- Bridge
- Drainage
- Fence
- Guardrail
- Herbicide
- Landscaping
- Mowing
- Operational Improvements
- PCC
- Pavement Preservation (asphalt)**
- Sidewalk
- Signs
- Sound Wall Repair
- Striping
- Sweeping
- Tree Cutting
- Undersealing
- Vegetation Removal

Fiscal Year 2022 ITBs and RMRs Plan

Statewide



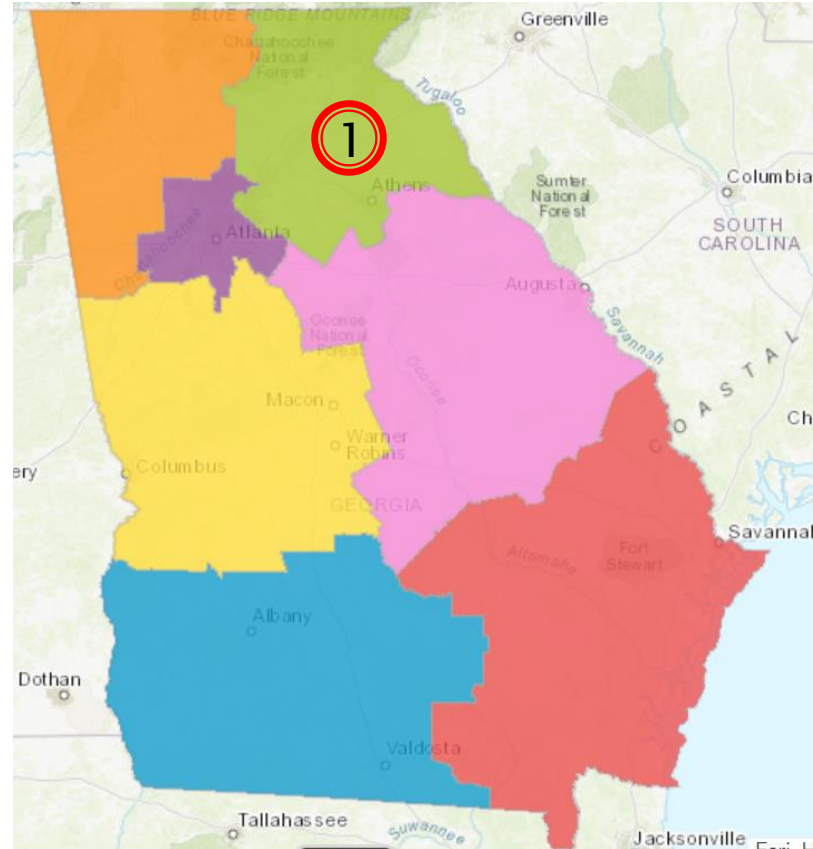
District Comparisons (1 & 5)

ITB funded contracts | No in-house activities | Excludes resurfacing projects

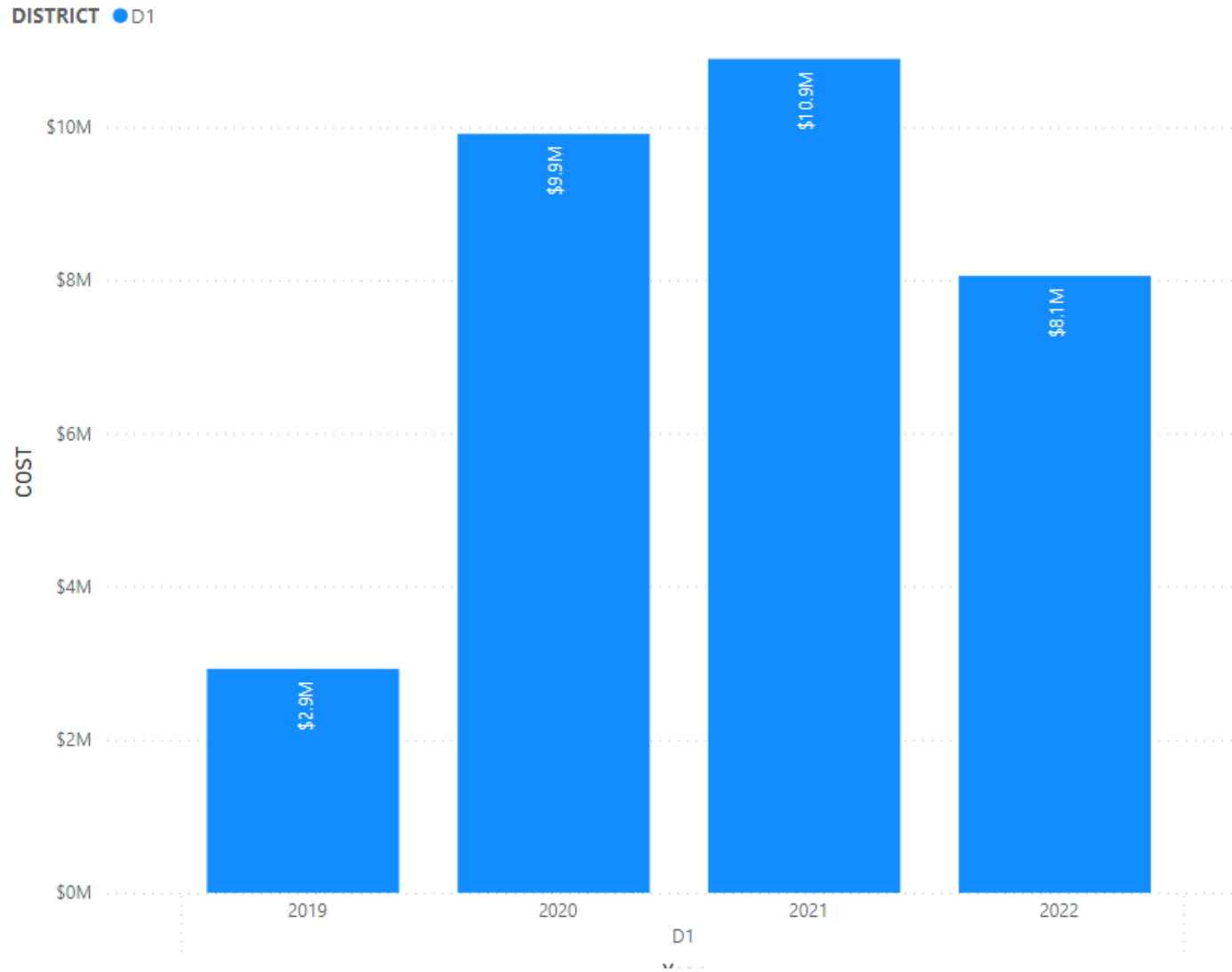
- Comparison 1: Overall Condition Index (OCI) vs Preservation spending
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District 1

- Northeast, Georgia
- Mountainous terrain
- Rural
- Urban (Athens)
- Total lane miles treated **881**



4 Year ITB Preservation Spend:

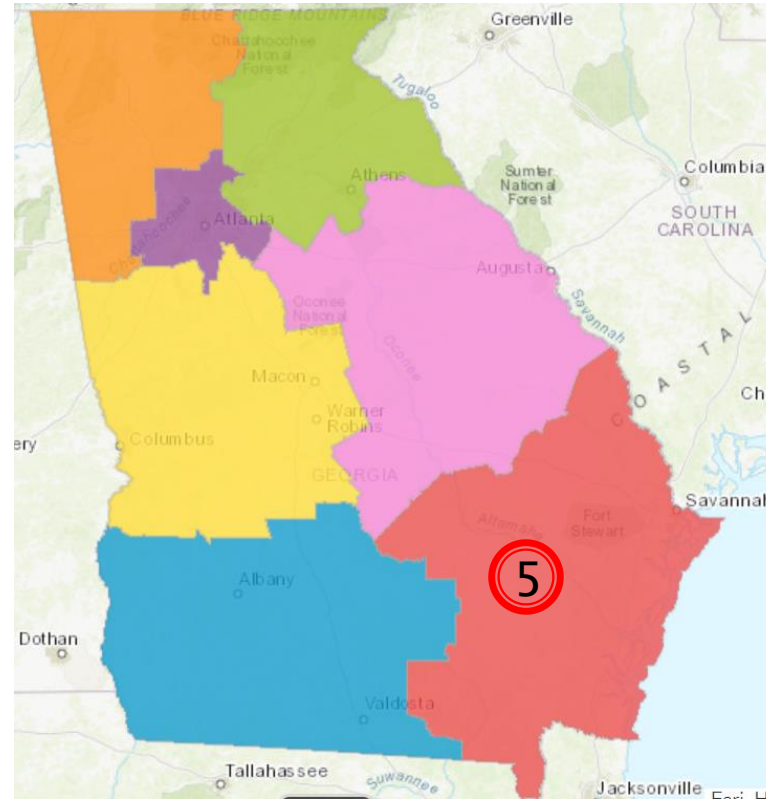


District 1 – \$31.78M to cover 881 lane miles

- 2019– OCI **77**
 - 2020– OCI **76**
 - 2021– OCI **77**
 - 2022– OCI **78**
- 0 - 69.9
● 70 - 84.9
● 85 - 100

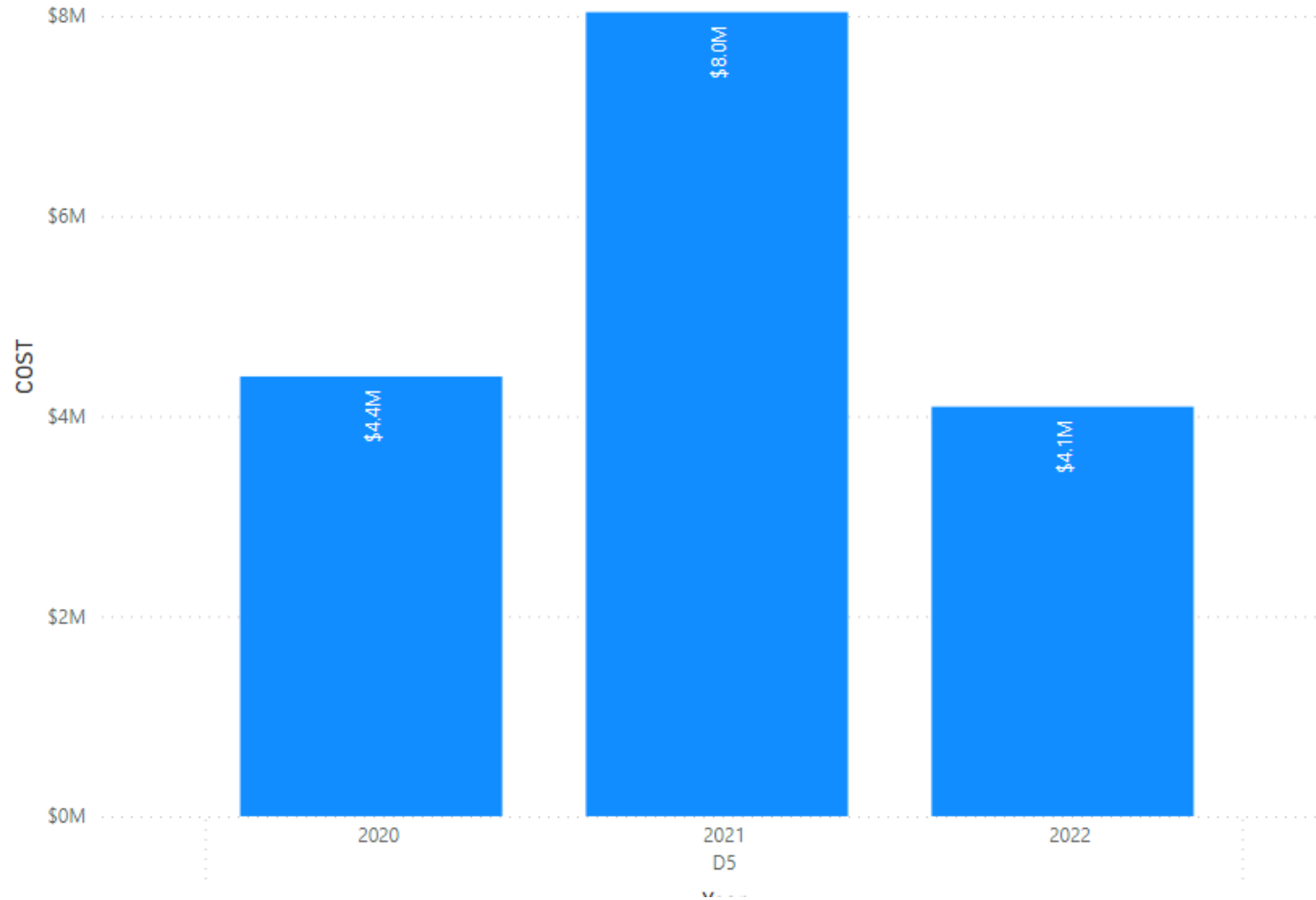
District 5

- Southeast, Georgia
- Coastal terrain
- Rural
- Urban (Savannah)
- Total lane miles treated 1145



4 Year ITB Preservation Spend:

DISTRICT ● D5



District 5 – \$16.53M to cover 1145 lane miles

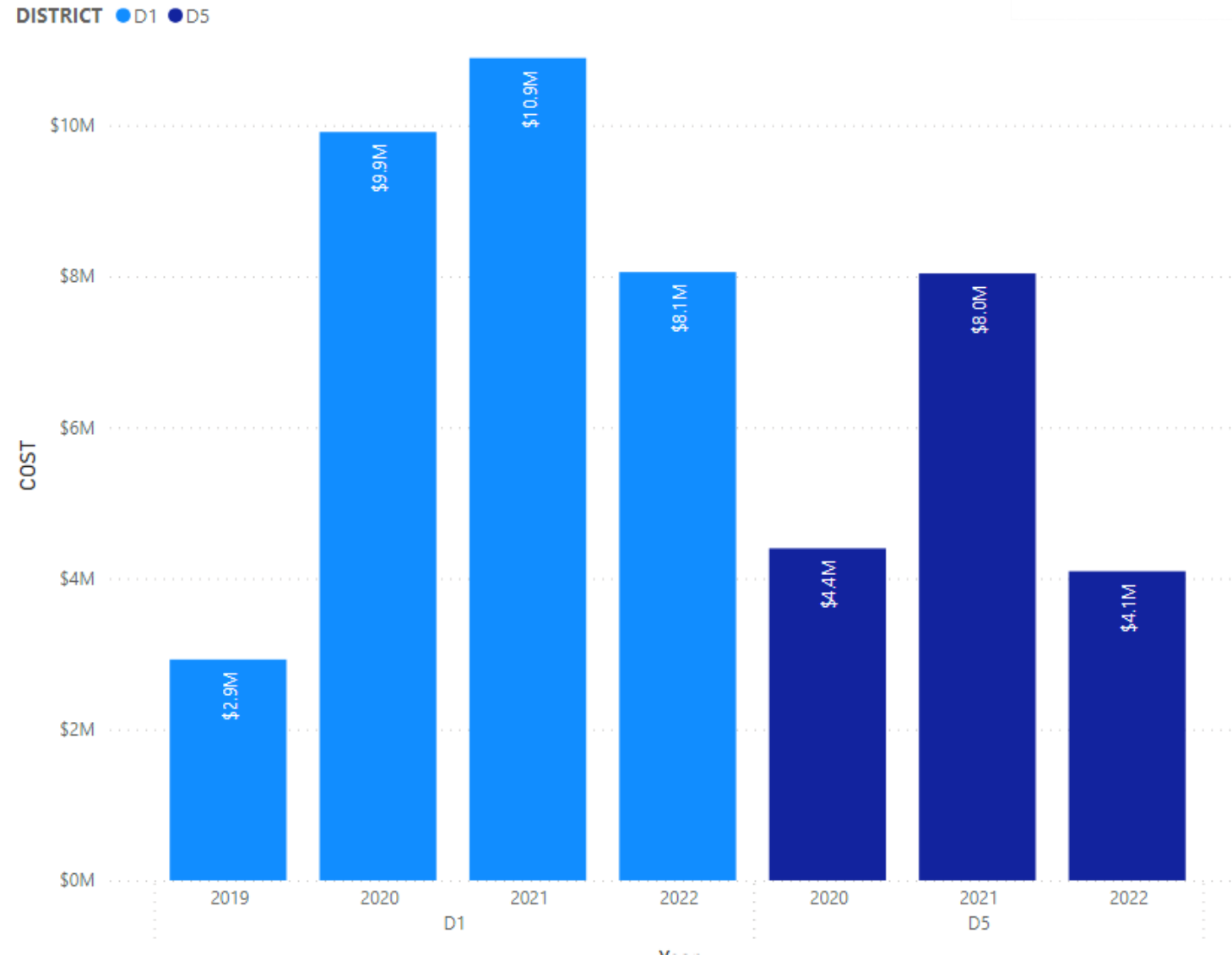
- 2019– OCI **82**
- 2020– OCI **83**
- 2021– OCI **84**
- 2022– OCI **88**

- 0 - 69.9
- 70 - 84.9
- 85 - 100

ITB SPEND COMPARISON

- District 1 – \$31.78M OCI 77 → 78
- District 5 – \$16.53M OCI 82 → 88
- District 1 – \$36K per Lane Mile
- District 5 – \$14K per Lane Mile

What makes the difference?



District Comparisons (1 & 5)

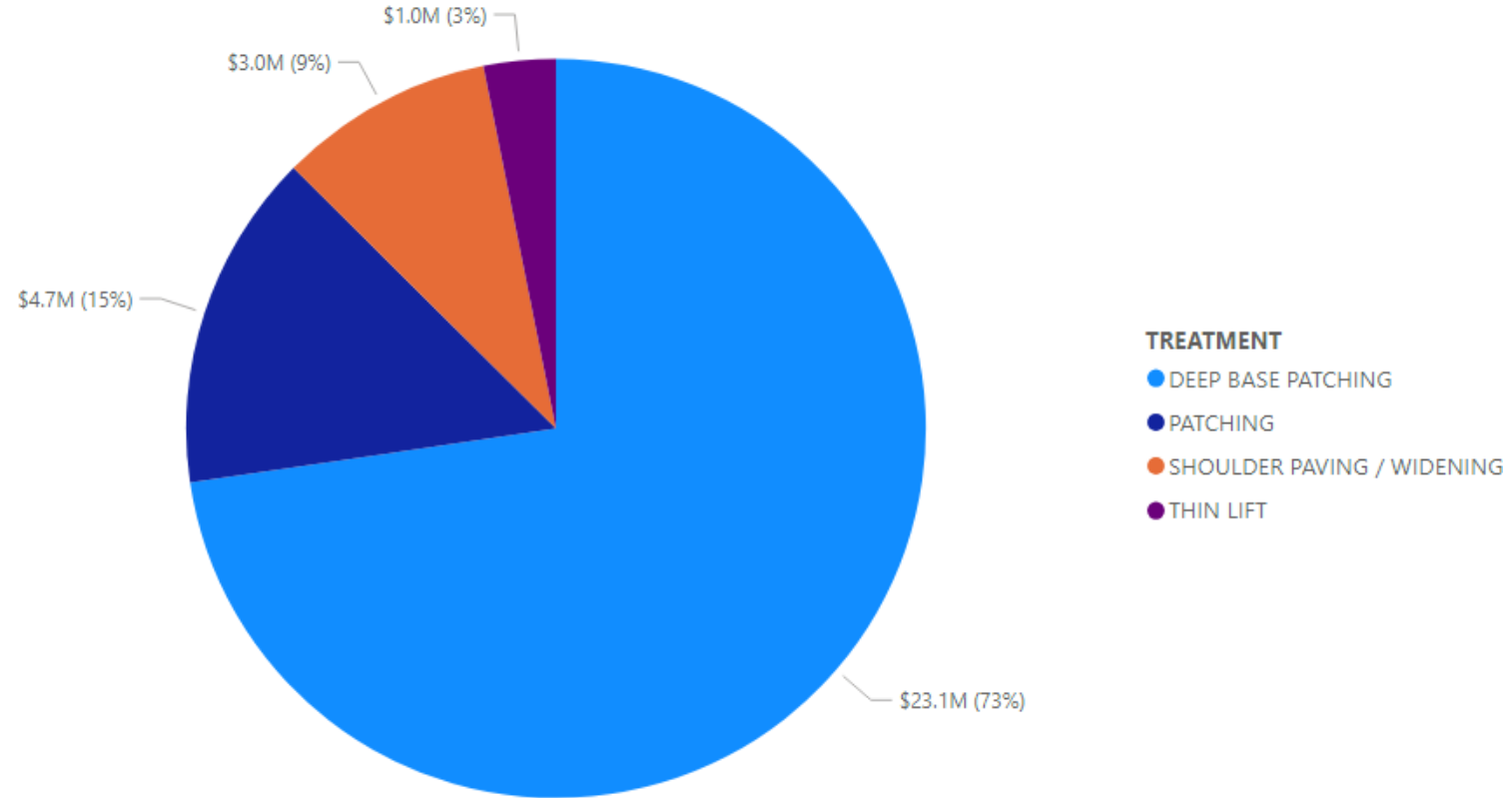
ITB funded contracts | No in-house activities | Excludes resurfacing projects

- Comparison 1: Overall Condition Index (OCI) vs Preservation spending
 - Segment specific OCI
- **Comparison 2: Treatments**
 - Spot based treatments vs. Broad based treatments
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District 1 – Total Spend \$31.78M

4 Year ITB Preservation Activity on Asphalt:

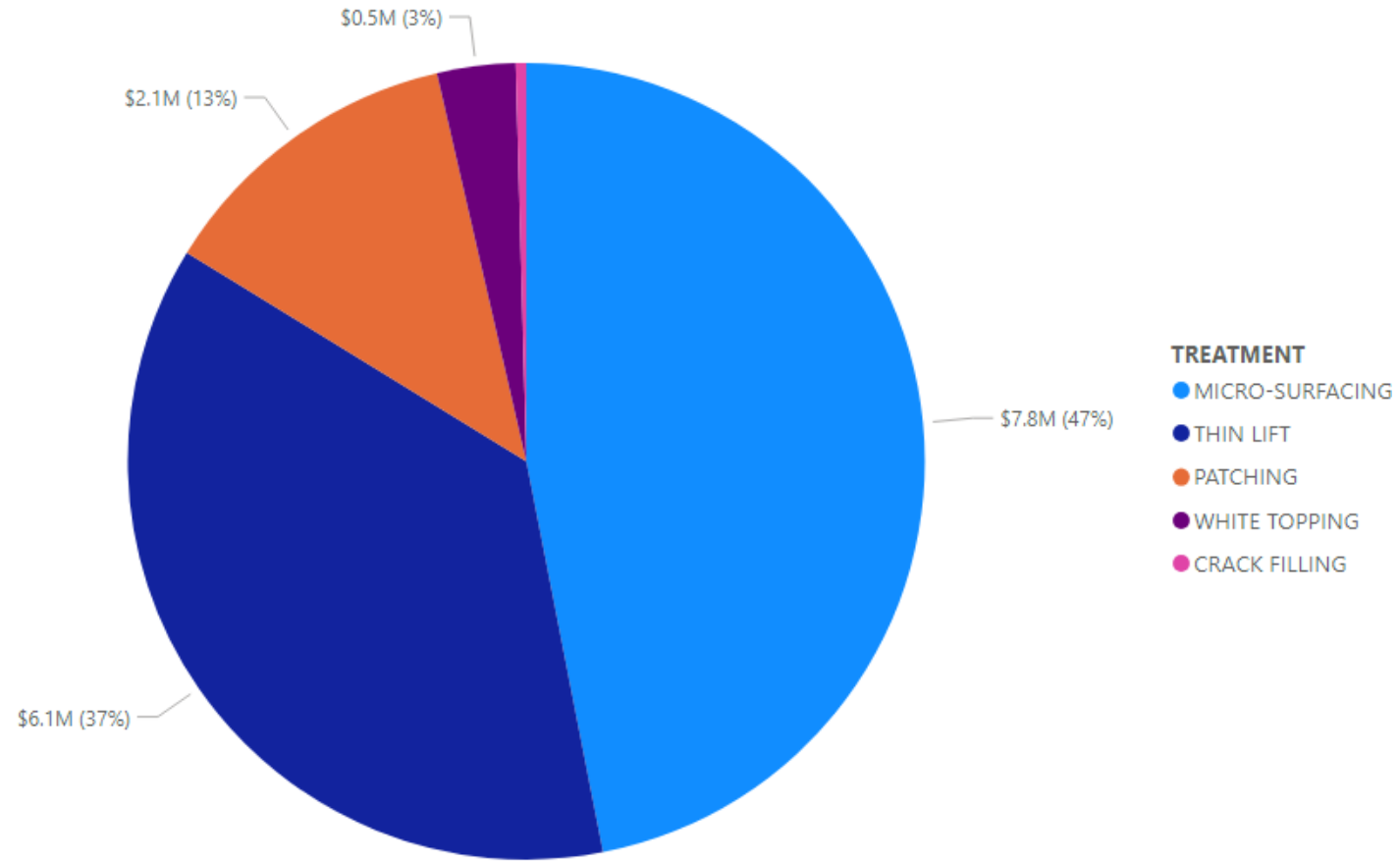
- 73% Deep Base Patching
- 15% Spot Patching
- 9% Shoulder Paving/Widening
- 3% Thin Lift Overlay



District 5–Total Spend \$16.53M

4 Year ITB Preservation Activity
on Asphalt:

- **47% Micro–Surfacing**
- **37% Thin Lift Overlay**
- 13% Spot Patching
- 3% White Topping
- 0.42% Crack Filling




District Comparisons (1 & 5)

ITB funded contracts | No in-house activities | Excludes resurfacing projects

- Comparison 1: Overall Condition Index (OCI) vs Preservation spending
 - Segment specific OCI
- Comparison 2: Treatments
 - Spot based treatments vs. Broad based treatments
- Comparison 3: Optimization Tool
 - Preservation vs. no preservation in pavement management planning

Construction Plan Dashboard

- Create scenarios
- Stare & Compare Plans
- View Area Coverage
- Estimate Budgets
- Customize Plans

ROUTE NAME <input type="checkbox"/> 1000100000200INC <input type="checkbox"/> 1000100000800INC <input type="checkbox"/> 1000100000900INC <input type="checkbox"/> 1000100001000INC		MILE MARKER 0.00 373.42 
PAVE. TYPE <input type="checkbox"/> Asphalt <input type="checkbox"/> Comp <input type="checkbox"/> JCP	NHS <input type="checkbox"/> NHS <input type="checkbox"/> NON-NHS	SRP <input type="checkbox"/> C <input type="checkbox"/> H <input type="checkbox"/> L <input type="checkbox"/> M
COUNTY <input type="checkbox"/> Banks <input type="checkbox"/> Barrow <input type="checkbox"/> Clarke <input type="checkbox"/> Dawson <input type="checkbox"/> Elbert <input type="checkbox"/> Forsyth <input type="checkbox"/> Franklin <input type="checkbox"/> Gwinnett <input type="checkbox"/> Habersham	STRATEGY NAME <input type="checkbox"/> D1Commit <input checked="" type="checkbox"/> D1CommitNoPres <input checked="" type="checkbox"/> D1NoCommit <input type="checkbox"/> D1NoCommitNoPres <input type="checkbox"/> D1NoCommitUnLtd	

District 1 Scenario

- District generated list
- Committed projects
- No Preservation
- Budget limited

MAP VIEW

Hart EMC, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, ... Powered by Esri

TREATMENTS SUMMARY

Treatment	Count	Committed	Centerline Miles	Lane M Miles
AC_Preserv_Major	227	54	775.38	1,820
AC_Rehab_Minor	74	12	315.04	884
Total	301	64	1,005.11	2,496

415M

Total Cost

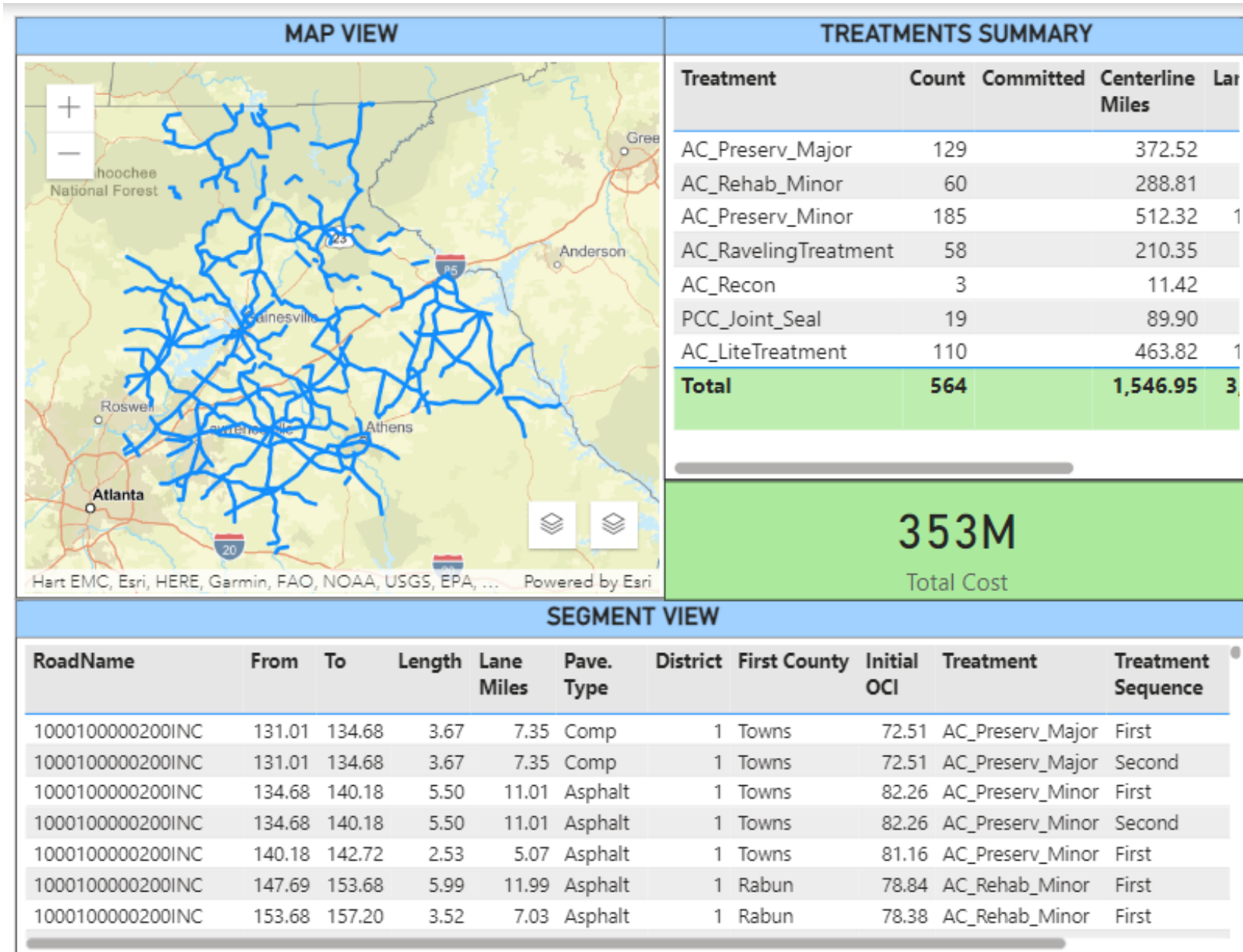
SEGMENT VIEW

RoadName	From	To	Length	Lane Miles	Pave. Type	District	First County	Initial OCI	Treatment	Treatment Sequence
10001000008000INC	76.28	82.59	6.31	25.25	Asphalt	1	Gwinnett	56.16	AC_Preserv_Major	First
10001000008000INC	76.28	82.59	6.31	25.25	Asphalt	1	Gwinnett	56.16	AC_Preserv_Major	Second
10001000008000INC	178.13	183.61	5.48	10.96	Asphalt	1	Hart	62.73	AC_Preserv_Major	First
10001000009000INC	39.52	46.12	6.60	13.20	Asphalt	1	Forsyth	71.32	AC_Preserv_Major	First
10001000009000INC	39.52	46.12	6.60	13.20	Asphalt	1	Forsyth	71.32	AC_Preserv_Major	Second
10001000009000INC	46.12	51.27	5.15	10.29	Asphalt	1	Forsyth	75.17	AC_Preserv_Major	First
10001000010000INC	17.71	24.46	6.76	40.54	Comp	1	Gwinnett	65.55	AC_Preserv_Major	First

Treatment	Count	Committed	Centerline Miles	Lane Miles	Cost
AC_Preserv_Major	227	54	775.38	1,820.42	266,559,295.81
AC_Rehab_Minor	74	12	315.04	884.95	148,732,154.88
Total	301	64	1,005.11	2,496.72	415,291,450.68

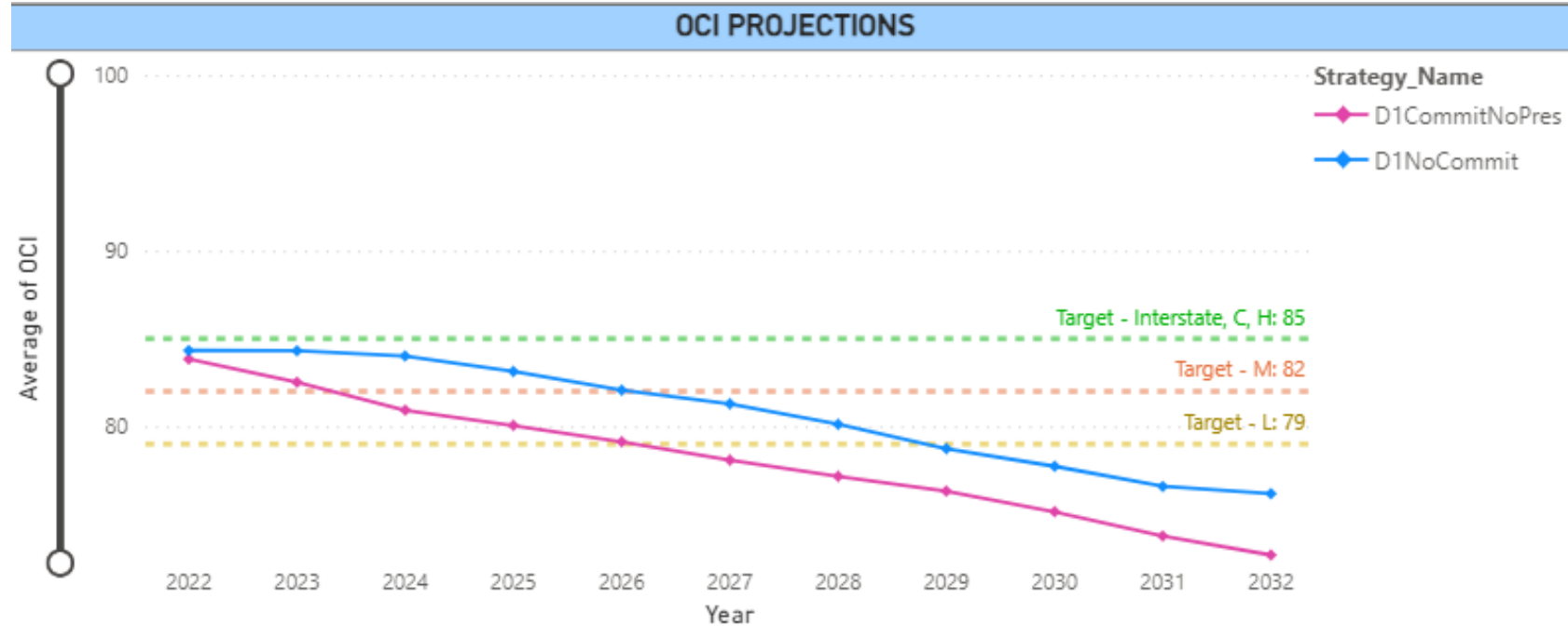
System Scenario for D1

- System generated list
- No committed projects
- Optimizes limited budget using all treatment options
- Robust preservation plan



District (CommitNoPres)
Vs
System (NoCommit)

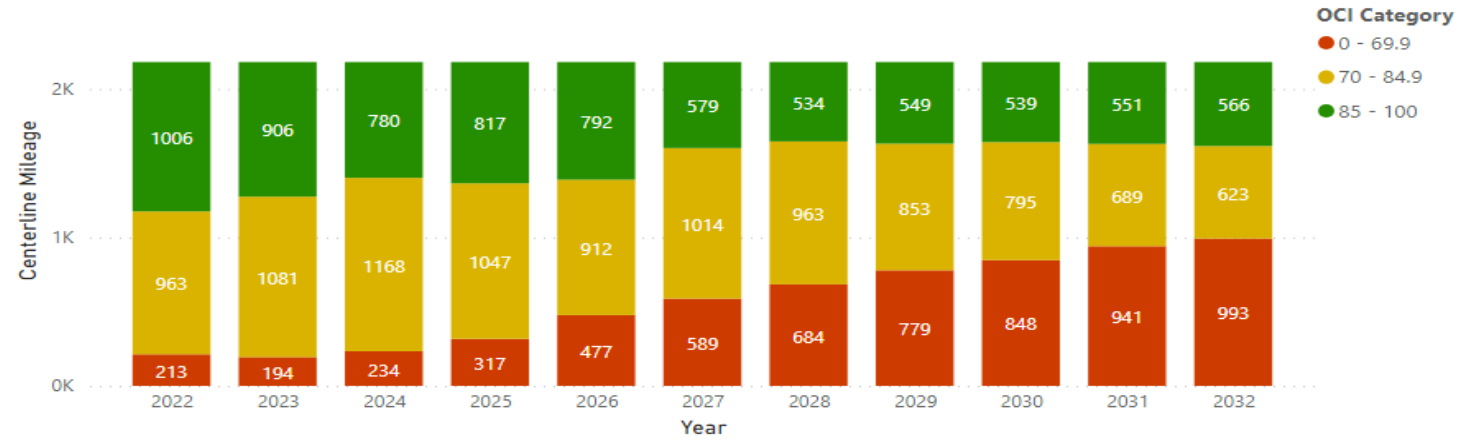
- 10-year outlook
- System generated projects higher performance
- Preservation plan extends KPI targets



D1 No Preservation



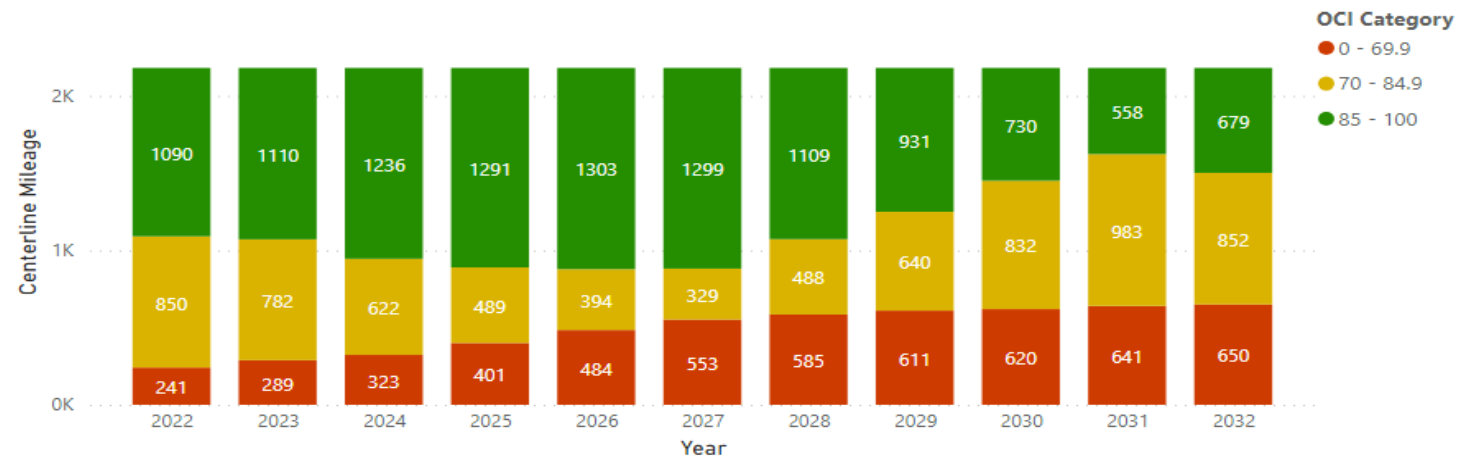
PROJECTED CENTERLINE MILEAGE



D1 Preservation



PROJECTED CENTERLINE MILEAGE



District 5 Scenario

- District generated list
- Committed projects
- No Preservation
- Budget limited

MAP VIEW

Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS Powered by Esri

TREATMENTS SUMMARY

Treatment	Count	Committed	Centerline Miles	Lane Miles
AC_Preserv_Major	269	112	999.02	2,566.59
AC_Rehab_Minor	36	9	95.45	266.56
PCC_Preserv_Major	1	1	1.41	2.82
Total	306	118	1,093.24	2,830.90

349M

Total Cost

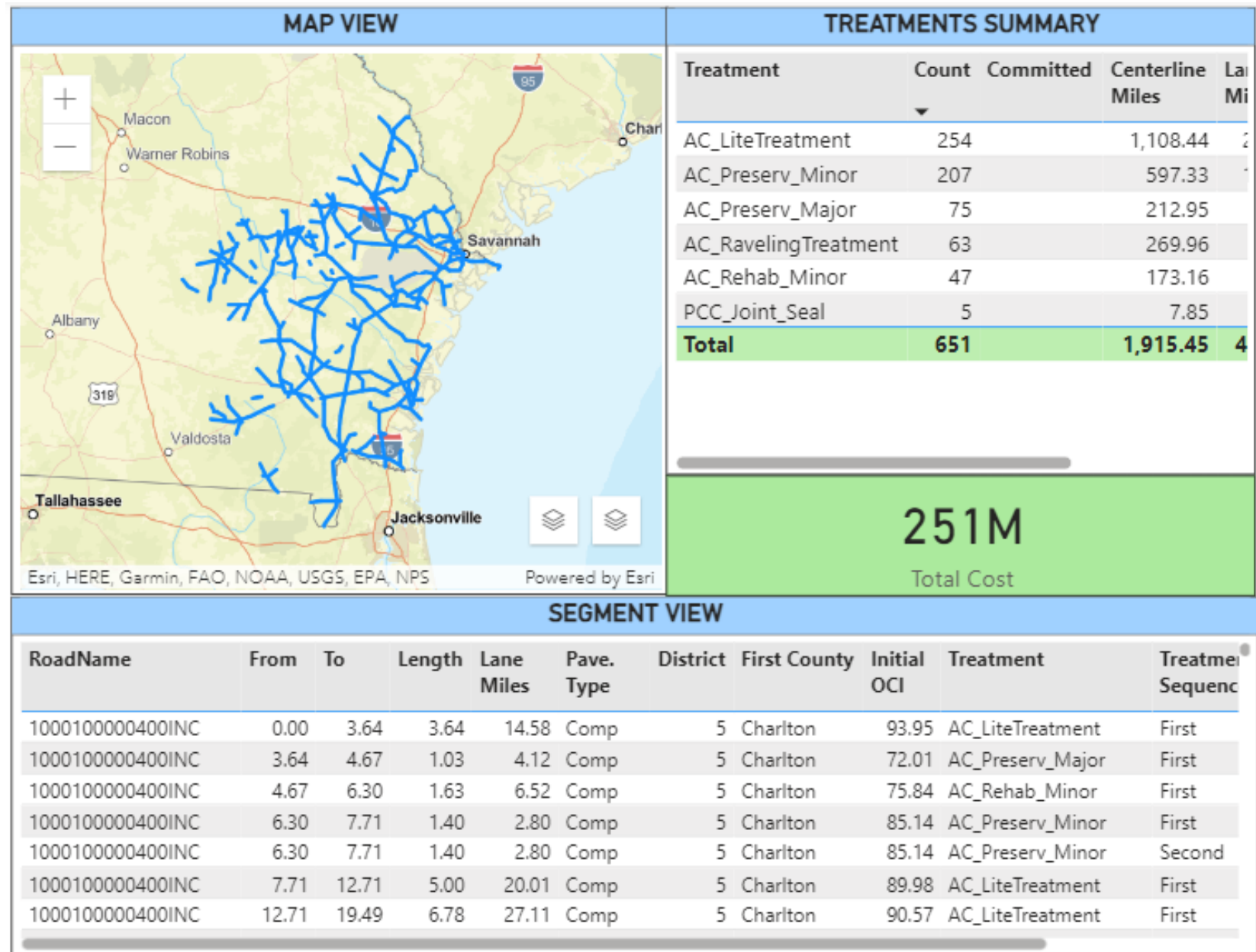
SEGMENT VIEW

RoadName	From	To	Length	Lane Miles	Pave. Type	District	First County	Initial OCI	Treatment	Treatment Sequence
1000100001500INC	109.61	110.12	0.51	1.54	Comp	5	Toombs	73.65	AC_Preserv_Major	First
1000100001500INC	110.12	111.35	1.23	2.45	Comp	5	Toombs	70.32	AC_Preserv_Major	First
1000100001500INC	110.12	111.35	1.23	2.45	Comp	5	Toombs	70.32	AC_Preserv_Major	Second
1000100001500INC	111.35	112.45	1.10	4.39	Comp	5	Toombs	64.41	AC_Preserv_Major	First
1000100001500INC	112.45	116.77	4.33	8.65	Asphalt	5	Montgomery	64.57	AC_Preserv_Major	First
1000100001500INC	116.77	124.00	7.23	14.46	Asphalt	5	Montgomery	74.07	AC_Preserv_Major	First
1000100001700INC	9.92	15.07	5.16	10.31	Asphalt	5	Effingham	77.25	AC_Preserv_Major	First

Treatment	Count	Committed	Centerline Miles	Lane Miles	Cost
AC_Preserv_Major	269	112	999.02	2,566.59	314,370,248.59
AC_Rehab_Minor	36	9	95.45	266.56	34,554,498.14
PCC_Preserv_Major	1	1	1.41	2.82	0.00
Total	306	118	1,093.24	2,830.90	348,924,746.73

System Scenario for D5

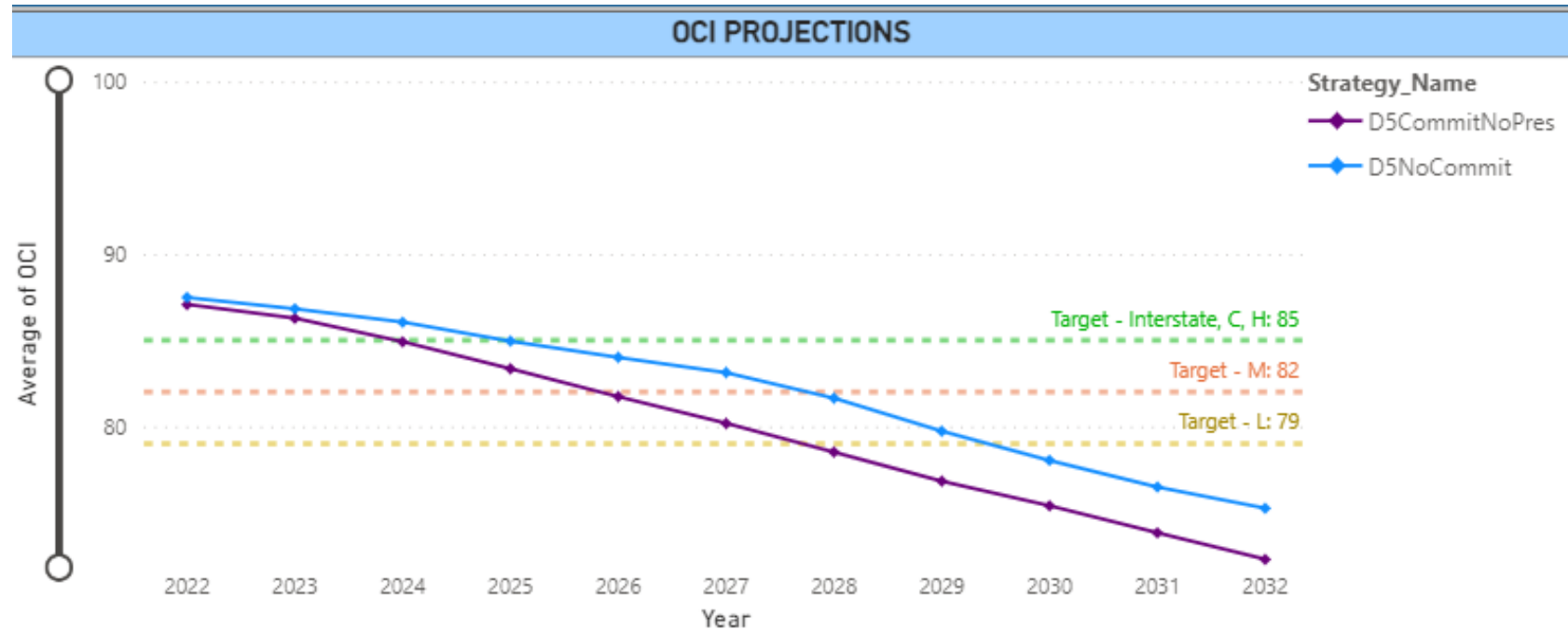
- System generated list
- No committed projects
- Optimizes limited budget using all treatment options
- Robust preservation plan



Treatment	Count	Committed	Centerline Miles	Lane Miles	Cost
AC_LiteTreatment	254		1,108.44	2,687.59	6,575,904.94
AC_Preserv_Minor	207		597.33	1,559.82	68,845,360.80
AC_Preserv_Major	75		212.95	506.48	58,470,895.46
AC_RavelingTreatment	63		269.96	635.74	41,531,228.88
AC_Rehab_Minor	47		173.16	502.53	74,715,474.88
PCC_Joint_Seal	5		7.85	31.12	830,703.59
Total	651		1,915.45	4,850.18	250,969,568.55

District (CommitNoPres)
Vs
System (NoCommit)

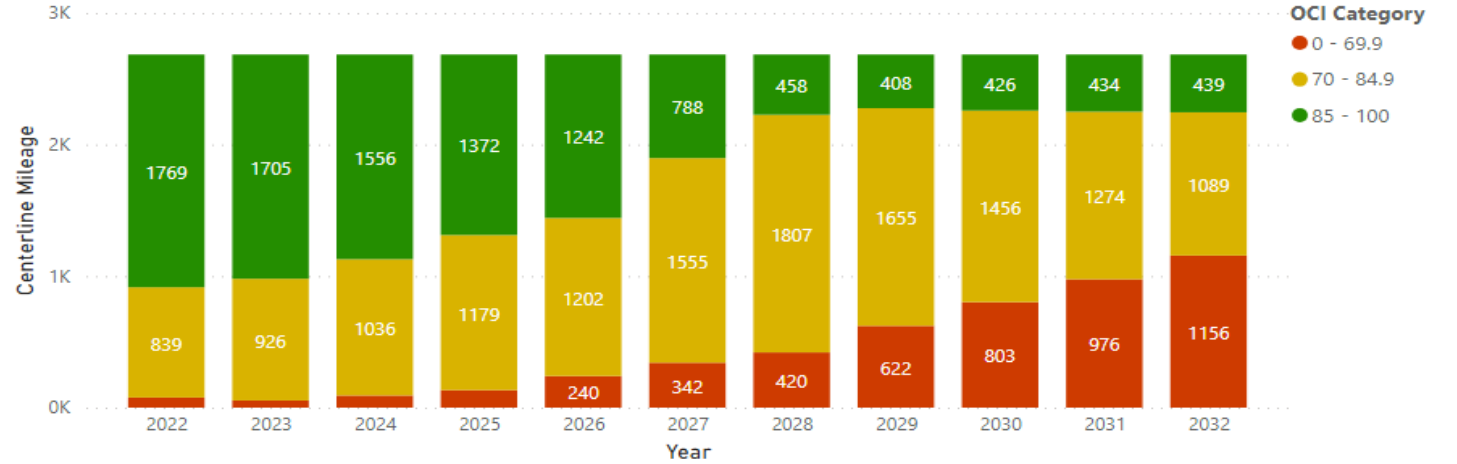
- 10-year outlook
- System generated projects higher performance
- Preservation plan extends KPI targets



D5 No Preservation



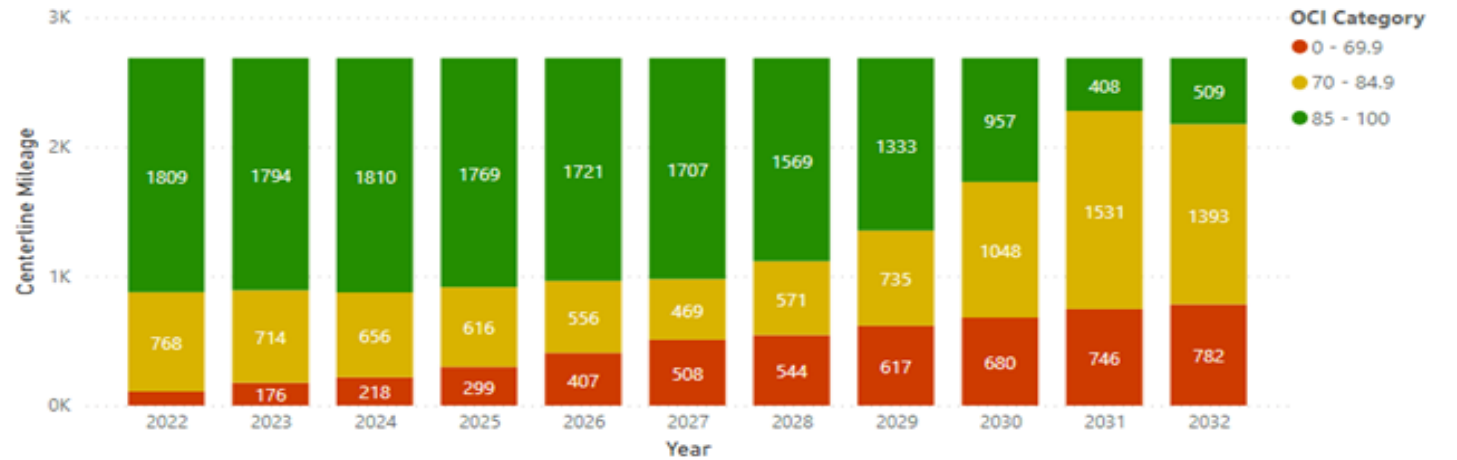
PROJECTED CENTERLINE MILEAGE



D5 Preservation



PROJECTED CENTERLINE MILEAGE



Questions?

Sam Wheeler

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SWheeler@dot.ga.gov