**Subject to updates

Chapter E: Transportation

1. Purpose

The transportation system and mobility are some of the most important factors that influence a community's economic well-being and support (or negatively impact) the health and cohesion of its population. The transportation system, including parking, is also one of the costliest infrastructural elements a town must maintain. This section will discuss and analyze the major transportation issues facing Gouldsboro. Specifically, it will;

a. Discuss the extent, use, condition, and capacity of Gouldsboro's transportation systems;
b. Assess the adequacy of these systems to handle current and projected demands; and
c. Account for areas where sustainable transportation alternatives and long-term cost savings in infrastructure management may exist.

2. Key Findings & Issues

The rate of traffic has increased since the last plan was prepared, due mostly to the rise in local Airbnb's and tourists. Due to the large size of the town (99.9 square miles), of which 46.17 square miles is land, road maintenance cost continues to be a major concern. Problem areas that were identified are as follows in the Table E-1) below:

Table E-1: Problem areas in Gouldsboro with high rate of traffic

Intersection of the Clinic Road & Route 1
Intersection of Pond Road & Route 1
Intersection of East Schoodic Drive & Route 186 (Mc's Market)
Corea Road and two lane road areas without shoulders which includes Birch Harbor (especially bikes on the roads especially groups of bikes, rather than single cyclists)

3. Key Findings & Issues from 2005 Plan

Gouldsboro did not face any major traffic issues in 2005, particularly related to congestion. Road mileage increased as a result of private roadways being accepted as townway roads, which increased road maintenance costs for Gouldsboro and increased the tax burden on residents.

4. 2022 Public Opinion Survey Results

Results from the 2022 public opinion survey showed general satisfaction of the Town's maintenance, snow removal and sanding. The main transportation concern of the survey was regarding the safety of bike paths around town; over 40% said that the safety of bicycling on town roads is poor. When asked about the "planning and development of bicycle and pedestrian infrastructure to improve the safety of these users" 40.4% of respondents ranked this as very important while 20.8% ranked it important. Along similar lines of thinking, over 50% ranked "planning and working toward creating a multi-use recreational trail system that connects with a larger network within the region" as either very important or important.

Less than half of the respondents believe that the condition of our roads are good, while 33.5% think our roads are in fair condition and 18.0% believe they are in poor condition.

5. Gouldsboro's Roads - Conditions and Trends

The Maine Department of Transportation (MaineDOT) has classified all public roads in the State. The classification system is based on the principle that the roads that serve primarily regional or statewide needs should be the State's responsibility and roads that serve primarily local needs should be a local responsibility. The functional classification of roads divides roads into three classifications based on geometric design parameters such as width, speed, and traffic volume capability. The State's classification system includes the following:

Arterials – Roads that connect major settlements and are designed for high-speed travel with limited access points. Routes 1 and Route 95 are examples of arterial roads. Gouldsboro has one arterial road.

Collectors – Roads that support traffic within a town or group of small towns or disconnected neighborhoods. They are designed to accommodate moderate speeds, 35 – 45 mph, and a moderate traffic volume. Routes 195 and 86 are examples of collectors. Gouldsboro has 24.13 miles of collector roads.

Local – Roads that are lightly traveled and comprise the network between residential areas and residential areas and downtowns. They are often narrower than the previous two road types and accommodate speeds under 35 mph. Most roads in Gouldsboro are classified as local roads. Development considerations are often influenced by road classification, especially when considering where to locate new development and what types. As Gouldsboro has mostly local roads, of which roughly 24.12 miles are maintained by the town, heavy industry and shipping would not be well suited to the travel patterns and character of the town on many of these roads. Map E- 1 will provide further details on road mileage and classifications to support future land use decisions.

Private Roads – Private roads are defined as roads that serve three or more dwellings. Currently the town of Gouldsboro has approximately 55 of these private roads. Roads serving two or fewer dwellings are defined as driveways of which Gouldsboro has approximately 62. That would be approximately 117 roads in Gouldsboro that the town is not responsible to plow or maintain.

Road Maintenance Plan

Gouldsboro continues to struggle with maintaining roadways, specifically paving of roadways. The continually increasing high cost of paving with an average expense of $100,00 per mile, makes it difficult to pave more than approximately a mile of roadway annually and impossible to get ahead (see Table E-2) This has been a topic of conversation at both the Town's Budget Committee meetings and Selectboard meetings. Moving forward, the town would like to add more each year to the paving account but this will knowingly increase taxes. The chart below shows fiscal year budgeting specifically for paving.

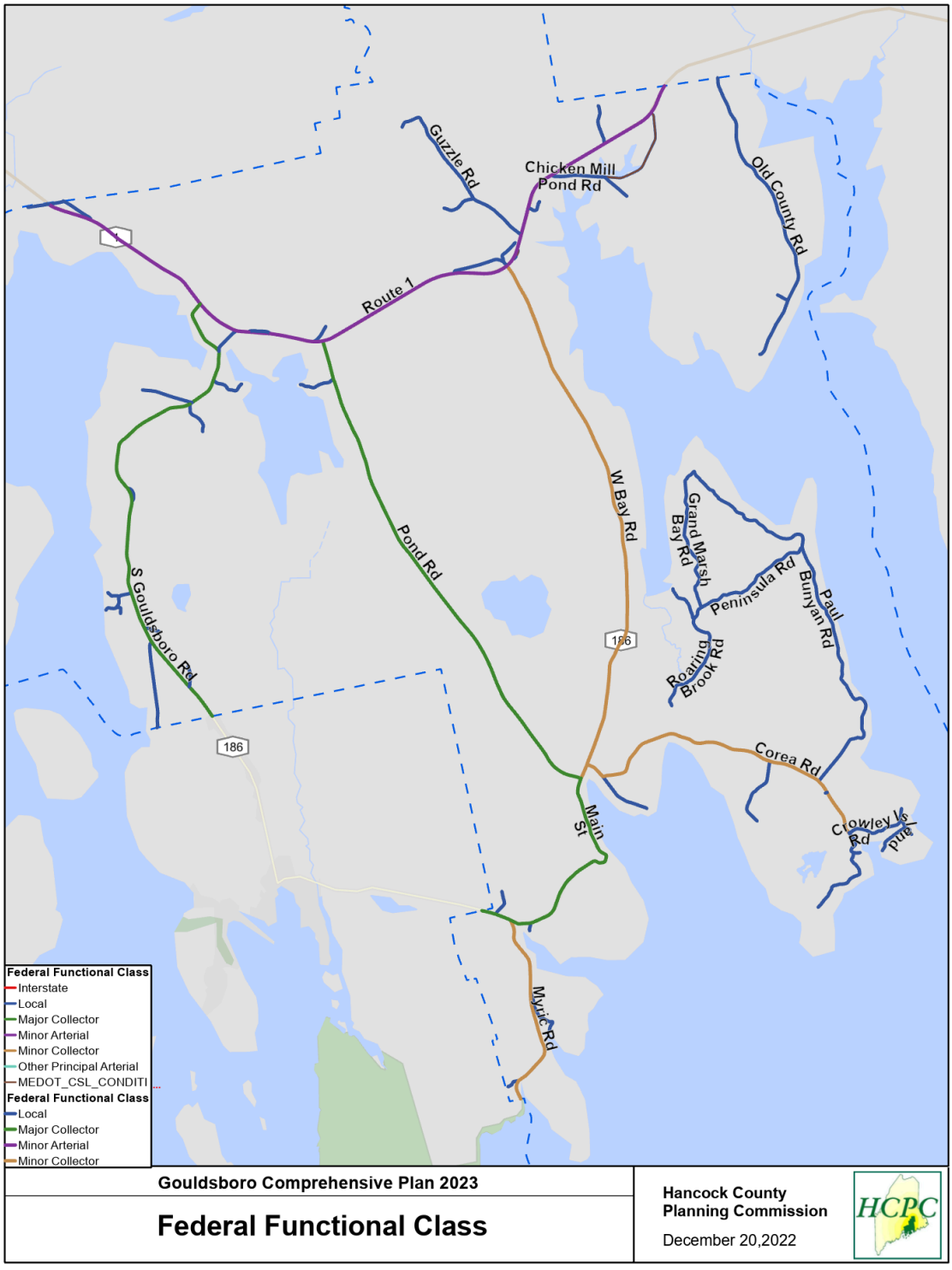
Table E-2: Paving Fiscal Year Budgeting

	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23
Paving Reserve	$100,000	$100,000	$100,000	$50,000	$80,000	$150,000	$150,000	$200,000	$330,000

Figure E-1: Federal Functional Classification

a. Road Mileage and Classification

Map E-1: Federal Functional Classification



Source: Maine Department of Transportation

b. Highway Corridor Priority

Another way that MaineDOT categorizes roads is its Highways Asset Management methodology. It represents an effort by MaineDOT to provide a fair, structured framework to prioritize programs and projects. There are two parts—the Highway Corridor Priority (HCP) and the Customer Service Level (CSL). The first part of the method, the **Highway Corridor Priority (HCP)**, categorizes Maine's highway assets into six levels of priorities:

Priority 1 Roads: These roads include the Maine Turnpike, the interstate system and key principal arterials designated as the National Highway System (NHS) like State Route 9 Brewer-Calais, US Route 2 Newport-Gilead and US Route 1 Houlton-Madawaska. The 1,873 miles of Priority 1 highway represent only 8 percent of the miles, but carry fully 40 percent of all vehicle miles traveled in Maine.

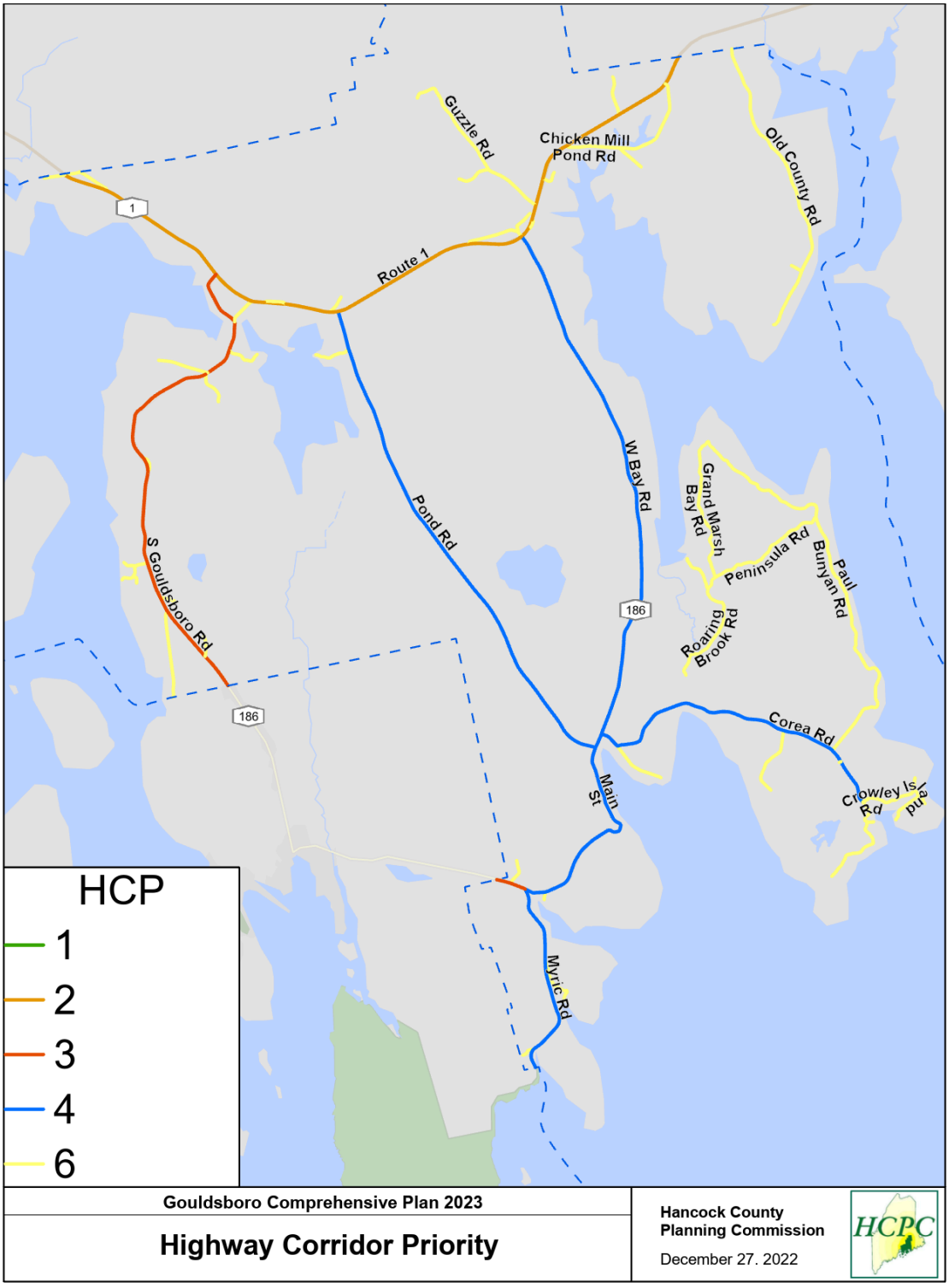
Priority 2 Roads: These roads include high-priority, non-NHS arterials like State Route 161 Caribou-Ft. Kent, State Route 15 Bangor-Greenville, and US Route 1 Ellsworth-Eastport. The HCP 2 roads total about 1,252 miles. They represent about 5 percent of the total miles of roadway and carry 18 percent of overall traffic.

Priority 3 Roads: These roads generally are the remaining arterials and major collector highways. They include corridors like US Route 202 China-Hampden, State Route 5 Cornish-Fryeburg, State Route 6 Lincoln-Topsfield, US Route 1 Baileyville-Houlton. These 1,257 miles represent 5 percent of miles, and carry 12 percent of the traffic.

Priority 4 Roads: These roads generally are the remaining arterials and major collector highways. They include corridors like US Route 202 China-Hampden, State Route 5 Cornish-Fryburg, State Route 6 Lincoln-Topsfield, US Route 1 Baileyville-Houlton. These 1,257 miles represent 5 percent of miles, and carry 12 percent of the traffic. (Priority 1-4 roadways are 39% of public road miles and carry 87% of all Vehicle Miles Traveled.)

Priority 5 Roads: These roads are local roads and streets, and are the year-round responsibility of MaineDOT's municipal partners. Though they carry just 13 percent of the statewide traffic, these 14,446 miles make up 61 percent of the total miles

Map E-2: Highway Corridor Priority Classification



a. **Safety**

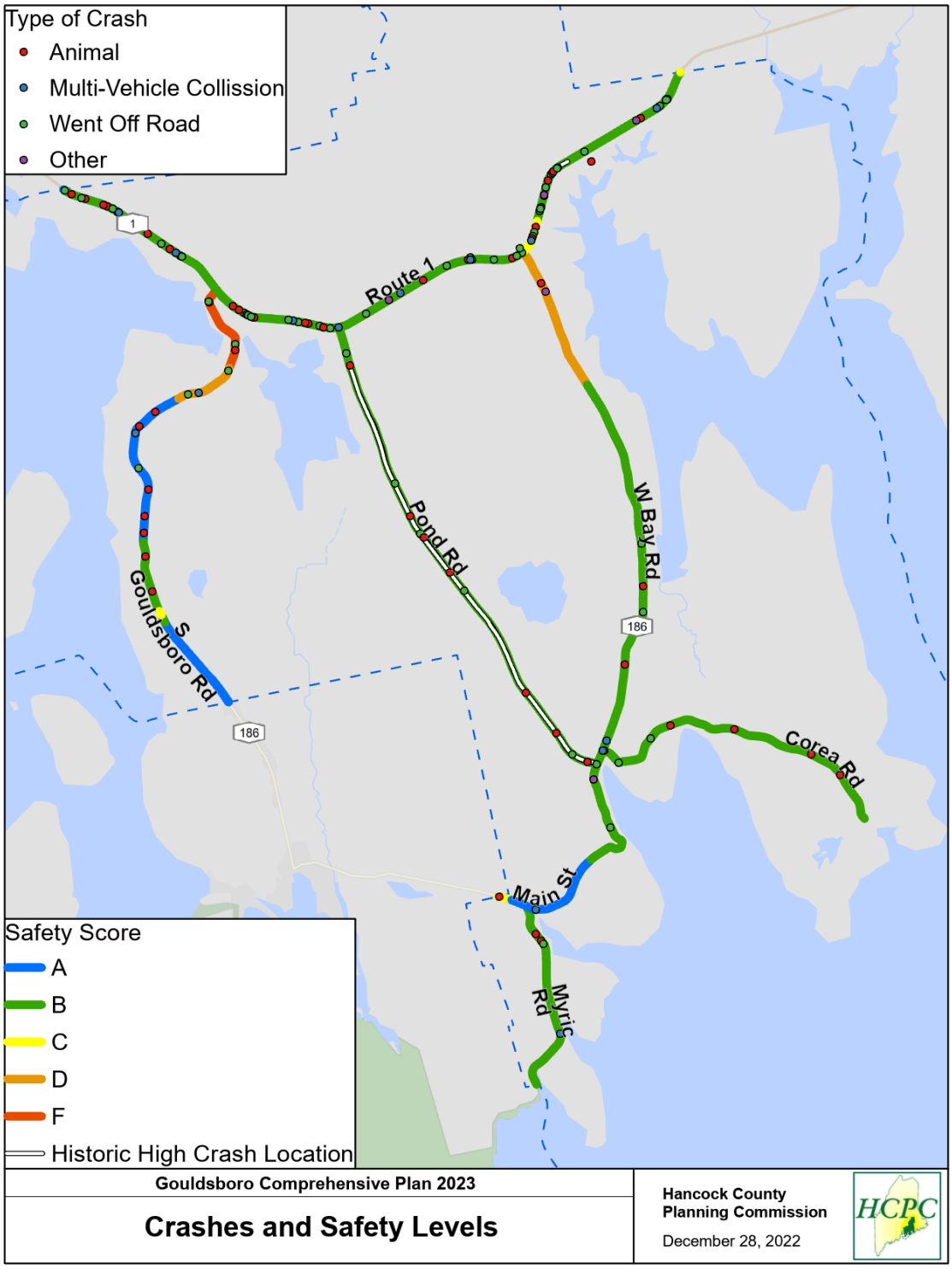
The second part of the method is determining the **Customer Service Level (CSL)** that measures MaineDOT managed highway assets (Priority 1-5) in three areas. The CSL uses

customer-focused engineering measures to track highway (1) Safety, (2) Condition and (3) Serviceability, and grades them similar to a report card (A – F). The factors that go into the Safety evaluation are: crash history, paved roadway width, pavement rutting, and bridge reliability.

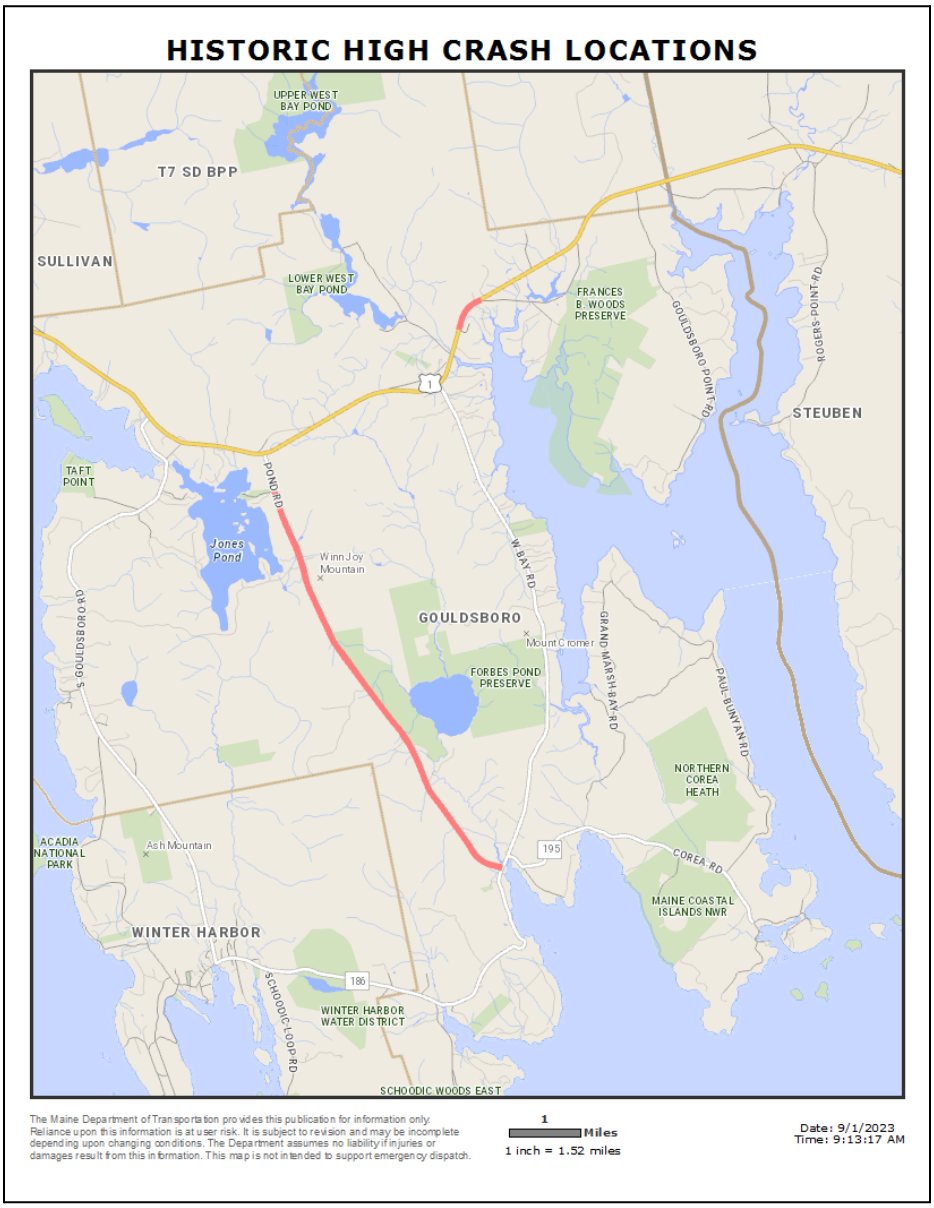
Figure E-3 below shows crash locations in Gouldsboro and roadway safety levels. The crash depictions represent crash locations from 2005 to the current year. Many of the crashes on Route 1 are with animals—deer primarily. Going off the road was also common.

One of the ways transportation engineers evaluate roadway safety is by looking at High Crash Locations and High Crash Location Segments. A High Crash Location is one that has a minimum of eight accidents over a three-year period and a higher than average rate of accidents when compared with similar intersections across the state (Critical Rate Factor). Gouldsboro has no current high crash locations (HCLs) and has maintained a safe transportation system since 2018. Historic HCLs are shown on Map E-4. The two locations are State Route 195, beginning at node 23508 ending at node 24300, with 15 crashes; US Route 1 between Chicken Mill Pond Road (Node 23930) and West Bay Road (Node 24031) had a total of eight crashes and a CRF of 1.45.

Figure E-3: Crashes and Safety Levels



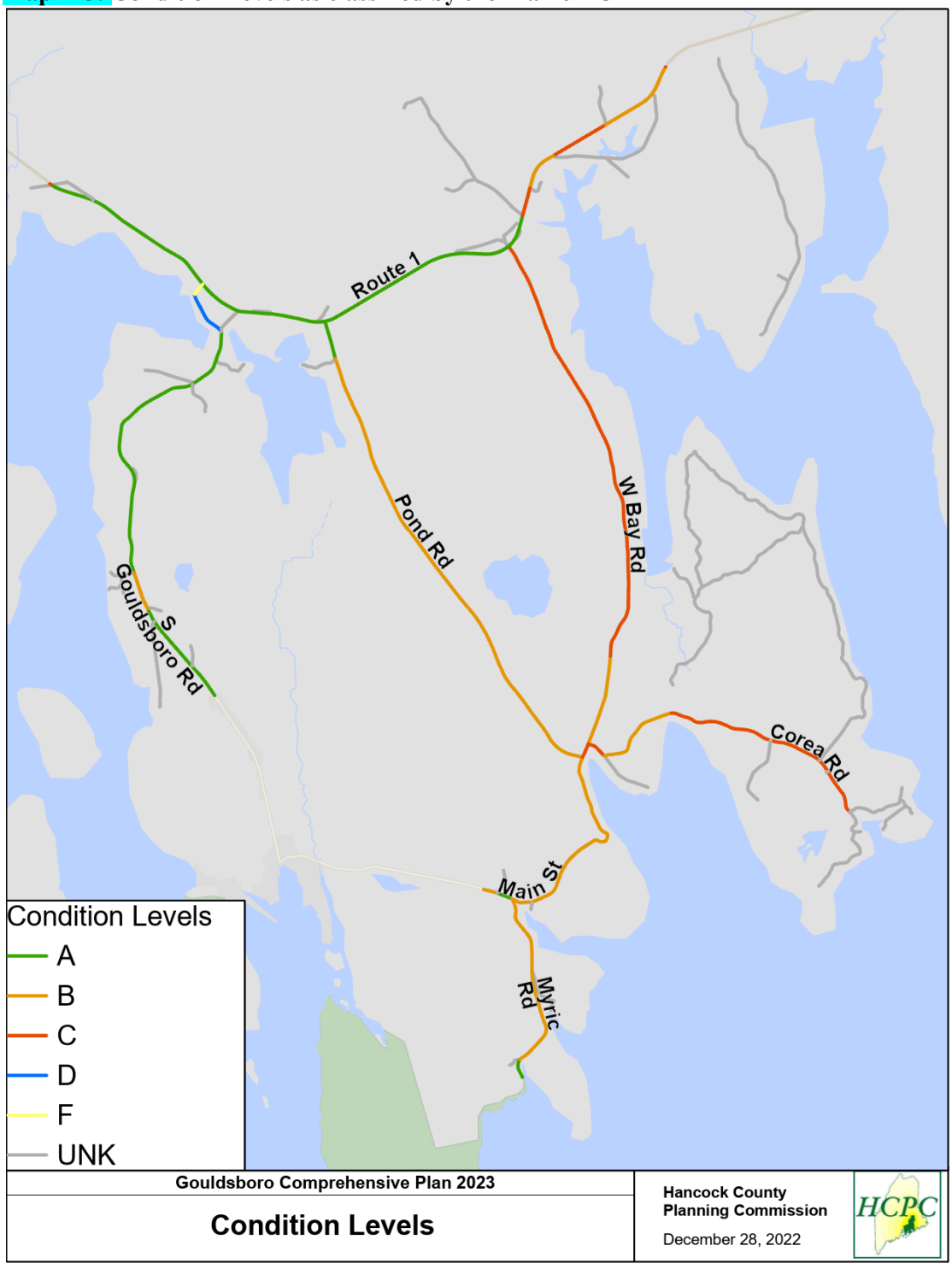
Map E-4: Historic High Crash Locations



b. **Condition**

The second part of MaineDOT's Customer Service Level evaluation is Condition. This assessment is based on ride quality, pavement condition, roadway strength, and bridge conditions. As seen in Map - E-5, Gouldsboro's arterial roadway, Route 1, is classified by the Maine DOT as being in Condition A. Several of the Town's roads are classified as being in Condition C. State Route 195/Corea Rd is classified as being in Condition C due to ride quality. Several portions of Route 1 are classified as being in Condition C due to ride quality and pavement conditions. Route 1 IR 521 (Guzzle Rd) is classified as being in Condition C due to structural bridge issues. Portions of South Gouldsboro Rd are classified as being in Condition D and Condition F due to pavement condition.

Map E-5: Condition Levels as classified by the Maine DOT

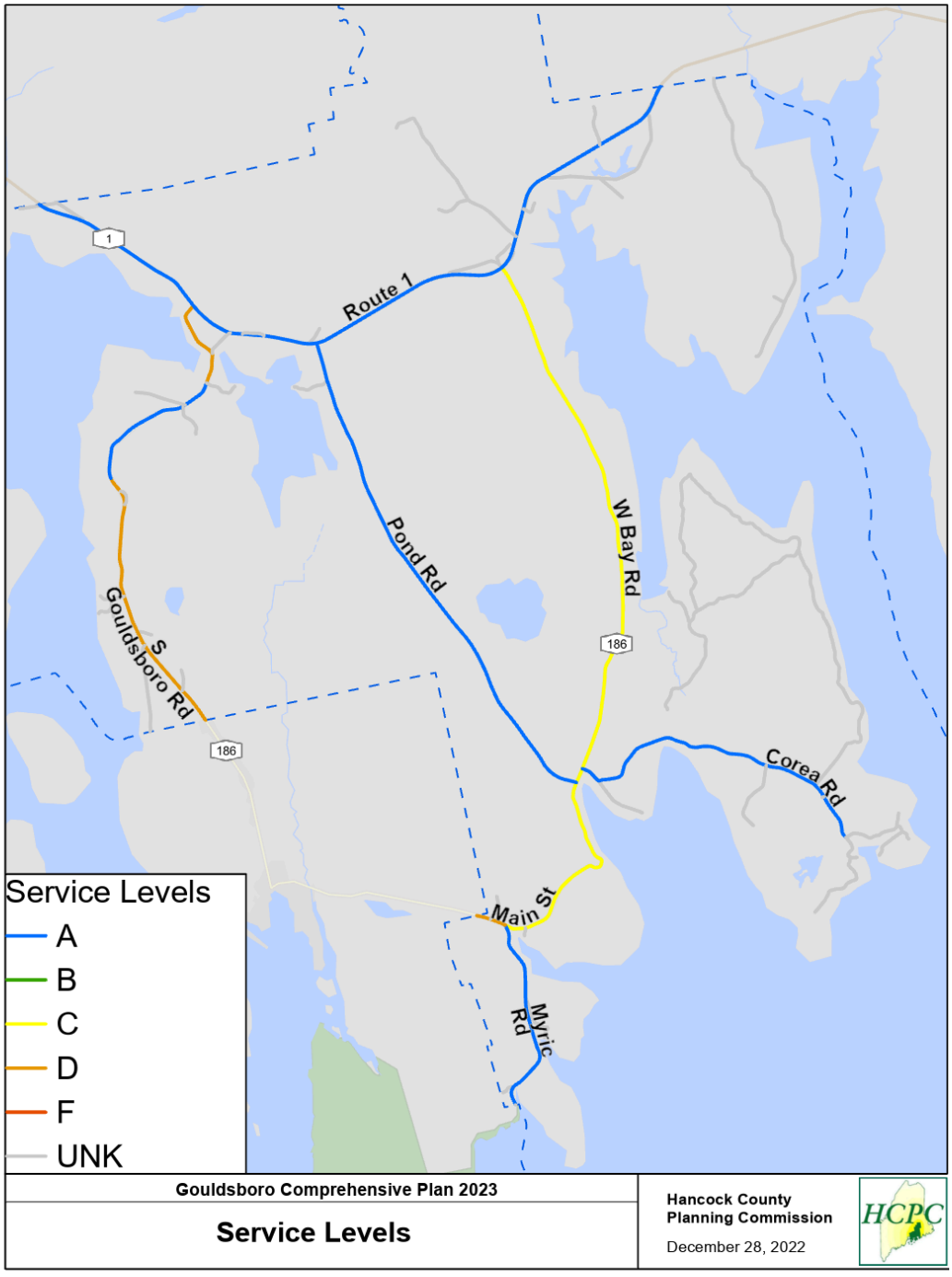


c. Service

The Service component of the Customer Service Level evaluation includes whether a roadway segment is posted during spring thaw to protect longevity, the weight load restrictions of any bridges, and

degree of congestion/delay with specific consideration for peak summer months due to the potential impact on tourism. In terms of Customer Service Levels, portions of Route 1, 186 (S Gouldsboro Road) and 195 received A grades. Route 186 along West Bay Road received a CSL grade of C while a portion of Route 186 along South Gouldsboro Road received a grade of D.

Map E-6: Service Levels



d. Traffic Volumes

Maine Department of Transportation states that "traffic volumes are monitored on a continuous, year-round basis at permanent recorder sites located on major highways throughout the State. These hourly counts are collected to produce an average weekday figure, a weekly average day, a monthly average day, and a monthly average weekday. This information is compiled to develop an Annual Average Daily Traffic (AADT) figure for each location. The AADT is computed from the average of daily totals for the entire year."

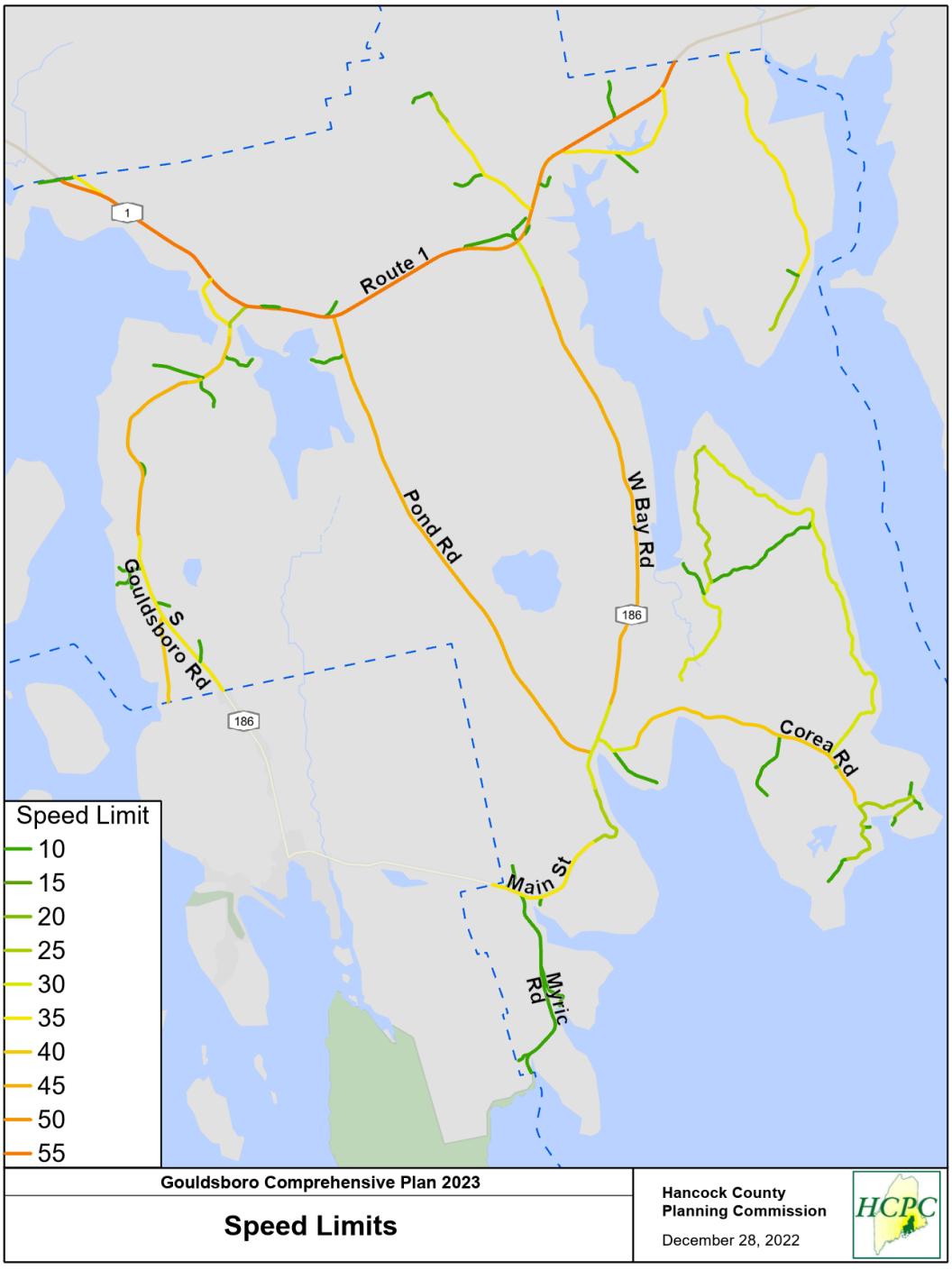
The highest average annual daily traffic (AADT) in Gouldsboro in 2018 was 6,080 on State Route 1/Bradley Road. Since 1979, traffic on the route has more than doubled. In more recent years, traffic has increased considerably on State Route 186/South Gouldsboro Road. Traffic volume undoubtedly varies by season.

Table E-3: Traffic Volumes

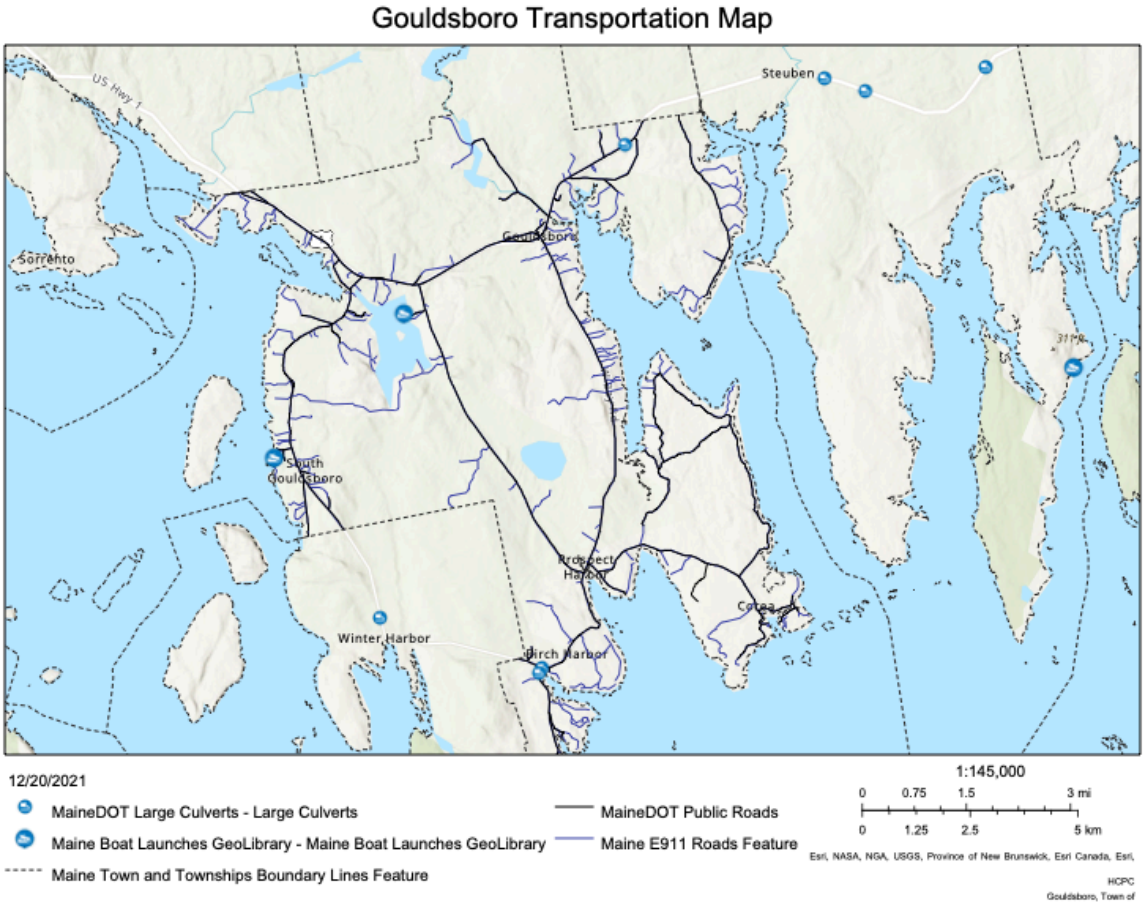
Location	1979	1996	2009	2012	2015	2018	% Chg 1979-2018	% Chg 2009-2018
IR 1015 (SUMMER HBR RD) S/O SR 186	153	230	230	200	-	200	30.7%	-13.0%
IR 1030 (COREA RD) S/O SR 195	343	360	260	300	-	300	-12.5%	15.4%
IR 1423 (CLINIC RD) SW/O US 1	598	-	1,050	890	810	760	27.1%	-27.6%
IR 1471 (CHICKEN MILL PD) S/O US 1		-	-	-	-	40		
IR 1471 (CHICKEN MILL RD) E/O US 1	67	-	-	-	-	70	4.5%	
IR 2176 (CROWLEY ISLAND RD) E/O IR 1030	290	270	320	390	-	360	24.1%	12.5%
IR 3160 (PAUL BUNYAN) NE/O SR 195(COREA)	-	-	200	-	-	220		10.0%
IR 521 (GUZZLE RD) NW/O US 1	161	-	210	-	180	-		
IR 521 (GUZZLE) NW/O IR 1038 @ BR# 5226	-	-	110	-	120	-		
IR 521(GUZZLE) @BR#0171 (1.7MI FROM US1)	-	-		-	40	-		
IR 600 (E SCHOODIC DR) S/O SR 186	883	1,290	660	810	620	950	7.6%	43.9%
SR 186 (MAIN ST) S/O SR 195 (S JCT)	1,804	2,250	1,570	1,350	1,390	1,500	-16.9%	-4.5%
SR 186 (MAIN ST) W/O IR 600 (E SCHOODIC)	1,156	1,990	1,120	1,260	-	1,420	22.8%	26.8%
SR 186 (S GOULDSBORO RD) SW/O US 1	-	-	820	-	740	1,310		59.8%
SR 186 (WEST BAY RD) NE/O SR 195 (N JCT)	2,791	1,020	910	720	900	790	-71.7%	-13.2%
SR 186 (WEST BAY RD) SE/O US 1 (E JCT)	807	1,080	890	720	-	890	10.3%	0.0%
SR 186 (WINTER HBR) SE/O IR 1015	1,140	1,870	1,180	1,470	-	1,610	41.2%	36.4%
SR 186 SW/O IR 1007 (YOUNGS FARM RD)	-	-	-	1,780	1,620	1,930		
SR 195 (COREA RD) E/O SR 186	1,101	1,610	-	990	920	960	-12.8%	
SR 195 (POND RD) NW/O SR 186 (MAIN ST)	628	860	1,180	870	940	1,040	65.6%	-11.9%
US 1 E/O SR 195 (POND RD)	1,800	3,210	3,320	3,360	-	3,370	87.2%	1.5%
US 1 NW/O IR 1423 (CLINIC RD)	-	-	4,550	-	4,350	-		
US 1 NW/O IR 2185 (BRADLEY FARM RD) (PW)	2,638	5,510	5,440	5,590	5,460	6,080	130.5%	11.8%
US 1 S/O IR 521 (GUZZLE RD)	-	3,600	3,600	3,560	3,490	3,920		8.9%
US 1 SE/O IR 1423 (CLINIC RD)		4,200	4,300	4,370	4,310	4,630		7.7%
US 1 SE/O SR 186 (S GOULDSBORO RD)		4,320	4,590	4,550		4,710		2.6%
US 1 SW/O IR 1471 (CHICKEN MILL)(N JCT)		3,310	3,510			3,740		6.6%

Source: Maine Department of Transportation Definition of terms: SW =South West, SE = South East, SW/O = South West of, Se/O = South East of, NW =North West, N/O = North of, S/O = South of, W/O = West of.

Map E-6: **Speed Limits**



Map E-7: Gouldsboro Transportation Map: 2021



Source: Maine Department of Transportation, Maine Office of GIS, US National Park Service

Major Traffic Generators:

While the rate of traffic in town has increased since the last plan was prepared, Gouldsboro does not presently face any serious traffic congestion issues other than occasionally during the annual town meeting, there is an overflow of traffic from the parking lot and residents park along the Pond Road.

d: Parking

The Town of Gouldsboro maintains the following municipal parking areas:

- The municipal office building has 23 spaces
- The Gouldsboro Recreation Center has 44 spaces

Parking at the municipal office building and the Gouldsboro Recreation Center is inadequate for hosting any large events. Parking along roads within Gouldsboro is dangerous as the road shoulders are not designed to support parking in key village areas.

The Town does benefit from the Bunkers Harbor Bike Trail Access Parking within the Schoodic section of Acadia National Park, which affords easy parking for biking and hiking access to the eastern section of the Schoodic section of the park.

Pedestrian & Bicycle Infrastructure

Gouldsboro has almost no dedicated pedestrian and bicycle infrastructure connecting major locations, such as the school, store and parks, and creating such connections is a challenge because many of the areas where such structures would be desirable are narrow and have no shoulders. These conditions impact residents' ability to safely walk and cycle, particularly in the winter months and at night. There is a short stretch of sidewalk in the Village of Prospect Harbor supporting the Peninsula School, the Town Office, and the Dorcas Library. Despite the infrastructural limitations, many residents engage in walking and bicycling for recreation. In seasonal months Gouldsboro's roads are popular for bicycle tourists, particularly along the Bold Coast Scenic Bikeway and the Schoodic National Scenic Byway.

Increased access by non-motorized users to the transportation system can lead to higher chances of motorist-pedestrian and motorist-cyclist conflict (crashes) without proper planning and adjustments to the current infrastructure. The Bicycle Coalition of Maine (BCM) has several potential options that may be applicable in Gouldsboro. These range from temporary installations that do not impact road geometry to educational programming for the local schools and community groups. Addressing pedestrian and cyclist safety will be an important topic for the town to consider as more non-motorized users access the transportation system. Increasing opportunities for residents to safely access walking and biking will be an investment in the health outcomes of all residents.

As stated above, connecting any major locations in town would be difficult as roads are narrow, have no shoulders and the main roads through town are state owned. An addition of bike lanes would address the pedestrian/cyclists safety concerns from Birch Harbor, down Main Street and on to Corea. Motorists share the road and must allow at least 3 feet but this is still a safety issue. The better option during tourist season, would be to utilize the Island Explorer.

Public Transportation, Airports & Rail Service

Gouldsboro has very limited public transportation available. Downeast Transportation operates a once daily round-trip bus service from Milbridge to the Jackson Lab location on Mount Desert

Island; this includes a scheduled stop in Gouldsboro at Young's Market on Route 1, at both 5:55 a.m. and 4:25 p.m., Monday-Friday. Downeast Community Partners provides limited services for eligible clients referred by Maine Department of Health and Human Services. Bangor offers year-round bus connections to Portland and Boston via Greyhound Bus Lines and Concord Coachlines. Although regular bus service within Hancock County is provided by the Island Explorer, this service does not stop in Gouldsboro.

As the average age of Gouldsboro's residents increases, many residents will require transportation to important medical appointments, shops and general social activities. Recent developments in mobile software applications and machine learning may enable Mobility as a Service (MaaS) options for Gouldsboro's residents. Such services include on-demand and peak travel time ride shares such as are to be found with ITNAmerica.

The closest airports are in Bangor and Trenton. Bangor International Airport has an 11,500 ft. runway with regularly connecting flights to Boston and New York City, along with chartered flights to Florida. The airport is also staffed with Customs and Border Protection Officers and Agents to clear passengers arriving from foreign points of entry. Bar Harbor – Trenton Airport in Trenton offers regular service to Boston and other regional cities on the east coast of the United States. Local airports for private use are located in Blue Hill and Stonington.

Since the closing of the Verso Mill in Bucksport, freight rail service has discontinued to much of Hancock County. There is no passenger rail service in Hancock County, although there is a short-distance scenic railroad ride in Ellsworth that operates from May to October. The nearest public ferry services do not include Gouldsboro. The Bar Harbor-Winter Harbor Ferry, whichalso connects the Mound Desert Island and Schoodic Peninsula sections of Acadia National Park, operates seasonally out of Winter Harbor. There are no known private boat services available for Gouldsboro.

Local Transportation & Mobility Issues

Parking remains an important local issue along with road maintenance and repair. As mentioned before, access to MaaS is a current and future necessity for many Gouldsboro residents. This need will only increase as Gouldsboro's population continues to advance in age. Accomplishing Gouldsboro's age-in-place goals will require alternative means of mobility for elderly and impaired residents. Alternative mobility support is also complemented by a popular understanding of and demand for improved pedestrian and bicycle access, connectivity and, more importantly, safety.

Regional Transportation & Mobility Issues

Hancock County and the surrounding region will face capacity issues with electric vehicle infrastructure. As more and more motorists are switching to fully electric vehicles (EVs) and plug-in hybrid electric vehicles (PHEV), demand will increase for charging opportunities. Towns and regions that are poised to provide this service early may have a competitive advantage over others for tourism revenue and attraction of potential future residents. Along with Fiber Internet,

EV infrastructure will be an important component for future development in the region. Improving access to MaaS is also not just a local issue for Gouldsboro, but for surrounding towns that have similar demographic profiles.

State and regional transportation plans that have been identified as a key asset for economic development, which will not have an impact for the town of Gouldsboro. The plan currently shows $31,250 to be allocated for the Federal Scenic Byway portion of Gouldsboro/Sullivan and WInter Harbor and another $6,250. Schoodic Byway Project to: 1) Provide staff support for administering the corridor management plan; 2) Pay for printing and publishing Byway educational materials; and 3) Support travel of byway representatives to regional and national conferences and workshops.

No specific work items in MDOT work plan for 2023-2025:
https://www.maine.gov/mdot/projects/workplan/data/workplan/town/Gouldsboro.pdf

Climate Change Impacts and Emerging Trends

Climate change is increasingly at the forefront of transportation planning concerns, particularly where sea level rise and extreme weather events are projected to damage and undermine many roads in coastal Maine. MaineDOT is interested in working with towns to make the transportation system resilient to future climate change. Various technological advances also offer new opportunities to complement existing transportation systems. These include vehicle automation and electrification, consolidation of vehicle ownership and the proliferation of ride-sharing services. All these factors will influence future transportation needs and as such planning. The town should consider evaluating the potential scenarios and flood risks to town maintained roads.

Goals & Objectives & Strategies

Goals - Objectives	Strategy(ies)	Responsible Party(ies)	Timeline
Improve Pedestrian & Bicycle Access Throughout Gouldsboro	1. Work with Bicycle Coalition of Maine (BCM) on Bicycle & Pedestrian Safety programming at local schools & youth groups.	Select Board or their designee(s) to work with Bicycle Coalition of Maine and Hancock County Planning Commission & Maine Department of Transportation	Immediate and on-going
	2. Work with BCM & HCPC to plan and identify possible		

Goals - Objectives	Strategy(ies)	Responsible Party(ies)	Timeline
	solutions and implementation strategies for this goal.		
	3. Source appropriate funding and grants to support non-motorized transportation in Gouldsboro.		
	4. Work with local land-trusts, conservation groups and property owners to identify potential locations for conservation easements, trail networks and connectives through Gouldsboro and region.		
Increase options for public transportation, transit and mobility services to all Gouldsboro residents and work towards supporting age-in-place goals with MaaS	1. Work with MaineDOT and HCPC to integrate the town in the Region's expanding transit hub and associated options at Acadia Gateway	Select Board or their designee(s) to work with DCP, other providers and Hancock County Planning Commission & Maine Department of Transportation	Immediate and on-going
	2. Work with Downeast Community Partners (DCP), Maine DOT/Moving Maine Working Group to identify potential mobility options and providers.		
Prioritize Gouldsboro's transportation needs	1. Work with HCPC and MaineDOT to assess town road	Select Board or their designee(s) to work	Immediate and on-going

Goals - Objectives	Strategy(ies)	Responsible Party(ies)	Timeline
against current MaineDOT work-plan and continue to assess work-plan vs. Town needs.	maintenance needs and priorities against upcoming planned projects by MaineDOT	with HCPC, MaineDOT.	