12.0 WINDSHIELD SURVEYS

This Chapter presents the results of field investigations and data collection activities to locate public and private catch basins connected to the sanitary sewer in Catchments 1, 2, 3, 4, 6, and 7. The surveys located catch basins from previous field investigations by others and additional catch basins indicated by smoke testing, dye testing and manhole inspections as part of this study which may be connected to the sanitary sewer system. A table listing the identified catch basins connected to the sanitary sewer system with criteria for disconnection is included.

Review of existing City plans and previous reports identified catch basins connected to the sanitary sewer at the following 10 locations:

- Cherry Street (tributary to Washington Street CSO Facility);
- Willow Street (tributary to Washington Street CSO Facility);
- Gladding Court (tributary to Washington Street CSO Facility);
- Broadway at Friendship Street (tributary to Washington Street CSO Facility);
- Harrison Lane (tributary to Washington Street CSO Facility);
- Newport Hospital main entrance and parking lot on Powell Avenue (tributary to Washington Street CSO Facility);
- Findley Place (tributary to Washington Street CSO Facility);
- Long Wharf (tributary to Long Wharf Pump Station);
- Morton Park (tributary to Wellington Avenue CSO Facility); and,
- Gidley Street (tributary to Wellington Avenue CSO Facility).

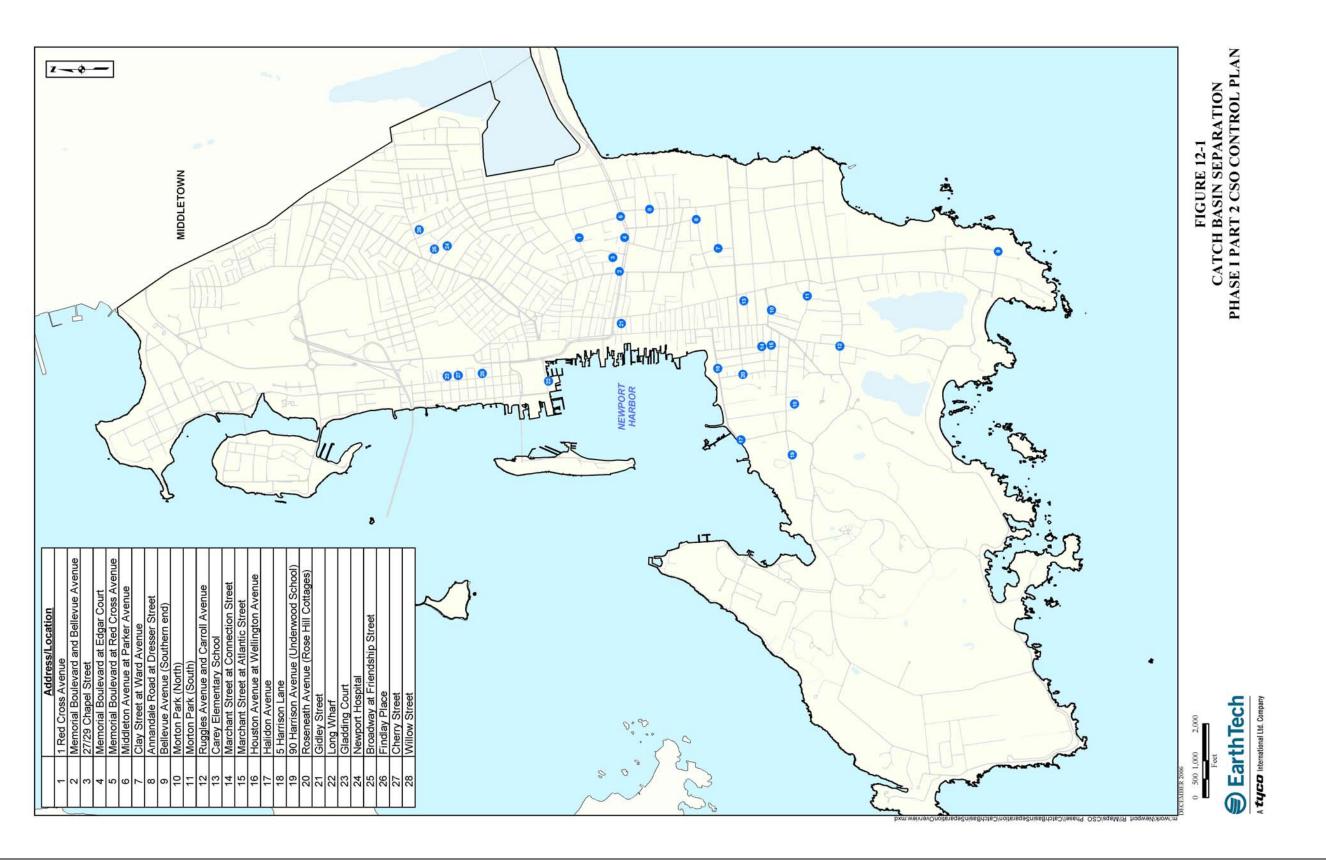
Based on the results of the SSES field investigations as part of this study, catch basins were identified as presently connected to the City's sanitary sewer system at the following 18 locations (all tributary to Wellington Avenue CSO Facility):

- 1 Red Cross Road
- Memorial Boulevard and Bellevue Avenue
- 27/29 Chapel Street
- Memorial Boulevard at Edgar Court
- Memorial Boulevard at Red Cross Avenue
- Middleton Avenue at Parker Avenue
- Clay Street at Ward Avenue
- Annandale Road at Dresser Street

- Bellevue Avenue (southern end)
- Ruggles Avenue and Carroll Avenue
- Carey Elementary School
- Marchant Street at Connection Street
- Marchant Street at Atlantic Street
- Houston Avenue at Wellington Avenue
- Halidon Avenue
- 5 Harrison Lane
- 90 Harrison Avenue (Underwood School)
- Roseneath Avenue (Rose Hill Cottages)

A total of 44 catch basins were identified at these 28 locations as sources of inflow to the sanitary sewers.

Figure 12.1 indicates the approximate locations of the connected catch basins.



Individual catch basin inflow source sites were evaluated for removal from the sewer system and potential connection to an existing storm drain system structure in the vicinity. Storm drain cross connections to the sanitary sewers which impact catch basin rehabilitation were included in the evaluation. Considerations to develop a new connection route included: the shortest distance to an existing storm drain structure, minimizing road construction, and the least disruption to vehicular traffic. A summary of the catch basins which includes the catchment area, catch basin identification number, street location, potential tie-in storm drain structure identification number, and separation criteria for each location is shown in Table 12.1. Separation criteria may change based on additional information.

Table 12.1 – Catch Basin Separation Criteria

Catchment Area	Inflow Source Structure(s) ID#	Address/Location	Potential Tie-in Structure(s) ID#	Separation Criteria	Comments
1	CB-081-13 CB-081-14	1 Red Cross Avenue	DMH-081-23	Connect existing catch basins to existing storm drain manhole at Old Beach Road / Sunnyside Place.	Private catch basins.
1	CB-088-21	Memorial Boulevard and Bellevue Avenue	12" storm drain north side Memorial Boulevard or DMH-088-142	Verify existence of 12" storm drain north side of Memorial Boulevard. Connect existing catch basin to existing 12" storm drain. Alternative: Determine flow capacity of storm drain in median Memorial Boulevard. Connect existing catch basin to existing storm drain manhole.	
1	CB-088-39	27/29 Chapel Street	DMH-088-1	Connect existing catch basin to existing storm drain manhole at Chapel Street.	
1	CB-088-3 CB-088-2 CB-088-22 CB-088-23	Memorial Boulevard at Edgar Court	DMH-088-144 DMH-088-145 DMH-088-146 DMH-089-161	Determine flow capacity of existing 27" storm drain west of Edgar Court to Freebody Street. Install new storm drain and manhole to connect existing catch basins to existing 27" storm drain. Alternative 1: Determine flow capacity of existing 24" storm drain east of Edgar Court to Middleton Avenue. Install new storm drain to connect existing catch basins to existing 24" storm drain. Alternative 2: Determine flow capacity of existing storm drain at Memorial Boulevard eastbound for possible tie-in with new manhole.	
1	CB-089-4	Memorial Boulevard at Red Cross Avenue	DMH-089-158 DMH-089-159	Connect existing catch basin to existing storm drain manhole eastbound Memorial Boulevard.	
1	CB-102-155 CB-102-156	Middleton Avenue at Parker Avenue	DMH-102-116	Connect existing catch basins to existing storm drain manhole at Middleton Avenue / Parker Avenue and disconnect storm drain manhole from sewer.	DMH-102-116 cross connects to sewer
1	CB-111-10	Clay Street at Ward Avenue	DMH-111-6	Bulkhead existing connection from existing catch basin to existing sewer manhole.	
1	CB-095-37 CB-095-60	Annandale Road at Dresser Street	DMH-095-44	To be determined (TBD).	Indirect connection. Recommended for dye flooding.
2	CB-194-156	Bellevue Avenue (southern end)	CB-194-152 CB-194-153	Connect existing catch basin to existing catch basin approximately 300 feet north.	

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Catchment Area	Inflow Source Structure(s) ID#	Address/Location	Potential Tie-in Structure(s) ID#	Separation Criteria	Comments
3	CB-129-33	Morton Park (North)	DMH-118-34 DMH-118-2	Plate existing catch basin.	
3	CB-129-1	Morton Park (South)	DMH-140-211	Plate existing catch basin.	
3	CB-151-285	Ruggles Avenue and Carroll Avenue	DMH-151-283	Bulkhead existing connection from existing catch basin to existing sewer manhole.	Indirect connection.
4	CB-118-39 CB-118-40	Carey Elementary School	DMH-118-21	Connect existing catch basins to existing storm drain manhole on Carey Street.	CB-118-39 indirect connection. Recommended for dye flooding.
4	CB-117-48 CB-117-49 CB-117-50 CB-117-51	Marchant Street at Connection Street	DMH-117-2 DMH-117-18	To be determined (TBD).	Indirect connection. Recommended for dye flooding.
4	CB-128-6 CB-128-7 CB-128-8 CB-128-9	Marchant Street at Atlantic Street	New DMH	Connect existing catch basins to existing 15" storm drain at Marchant Street / Atlantic Street with new storm drain manhole.	CB-128-(2,3,4,5) recommended for dye flooding.
4	CB-109-35 CB-109-36	Houston Avenue at Wellington Avenue	DMH-109-17	Connect existing catch basins to existing storm drain manhole at existing 18" storm drain via new storm drain manhole. Alternative: Connect existing catch basins to existing 36" storm drain at Wellington Avenue with new manhole.	
4	CB-116-38 CB-116-42 CB-116-44	Halidon Avenue	DMH-116-39 DMH-116-41 DMH-116-43	To be determined (TBD).	Indirect connection. Recommended for dye flooding.
4	CB-127-1	5 Harrison Lane	CB-127-93	Connect existing catch basin to existing catch basin at Harrison Avenue via new manholes.	Indirect connection. Recommended for dye flooding.

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Catchment Area	Inflow Source Structure(s) ID#	Address/Location	Potential Tie-in Structure(s) ID#	Separation Criteria	Comments
4	CB-126-12	90 Harrison Avenue (Underwood School)	CB-126-11	Connect existing catch basin to existing catch basin at sideline of Harrison Avenue.	
4	CB-117-66 CB-117-67	Roseneath Avenue (Rose Hill Cottages)	DMH-117-63	Connect existing catch basins to existing storm drain manhole Roseneath Avenue / West Narragansett Avenue via new manhole.	Private catch basins, indirect connections. Recommended for dye flooding.
6	See comment.	Gidley Street	DMH-087-102 CB-087-77	To be determined (TBD).	Catch basin reported, exact location pending further investigation.
Long Wharf catchment	CB-071-1	Long Wharf	CB-071-7	Connect existing catch basin to existing catch basin approximately 120 feet east on Long Wharf.	Investigate discharge location of CB-071-7.
Washington St. catchment	CB-050-1	Gladding Court	DMH-049-6	Connect existing catch basin to existing storm drain manhole Battery Street / Second Street via Sunshine Court and Third Street with new manholes.	
Washington St. catchment	CB-052-6	Newport Hospital (main entrance at Powell Avenue)	CB-052-10	Connect existing catch basin to existing catch basin in parking lot across Powell Avenue.	Private catch basin. Investigate discharge location of CB-052- 10.
Washington St. catchment	CB-052-3	Broadway at Friendship Street	DMH-052-71	Connect existing catch basin to existing storm drain manhole at Bradford Avenue via Friendship Street with new manhole.	
Washington St. catchment	CB-046-17	Findlay Place	DMH-046-5	Connect existing catch basin to existing storm drain manhole at Bliss Road via new manhole.	
Washington St. catchment	CB-057-49	Cherry Street	CB-057-28 DMH-057-11	Connect existing catch basin to existing catch basin end of Cherry Street.	Investigate discharge location of CB-057- 28.
Washington St. catchment	CB-057-19	Willow Street	CB-057-41 DMH-057-12	Connect existing catch basin to existing catch basin end of Willow Street.	Investigate discharge location of CB-057- 41.