PLATES

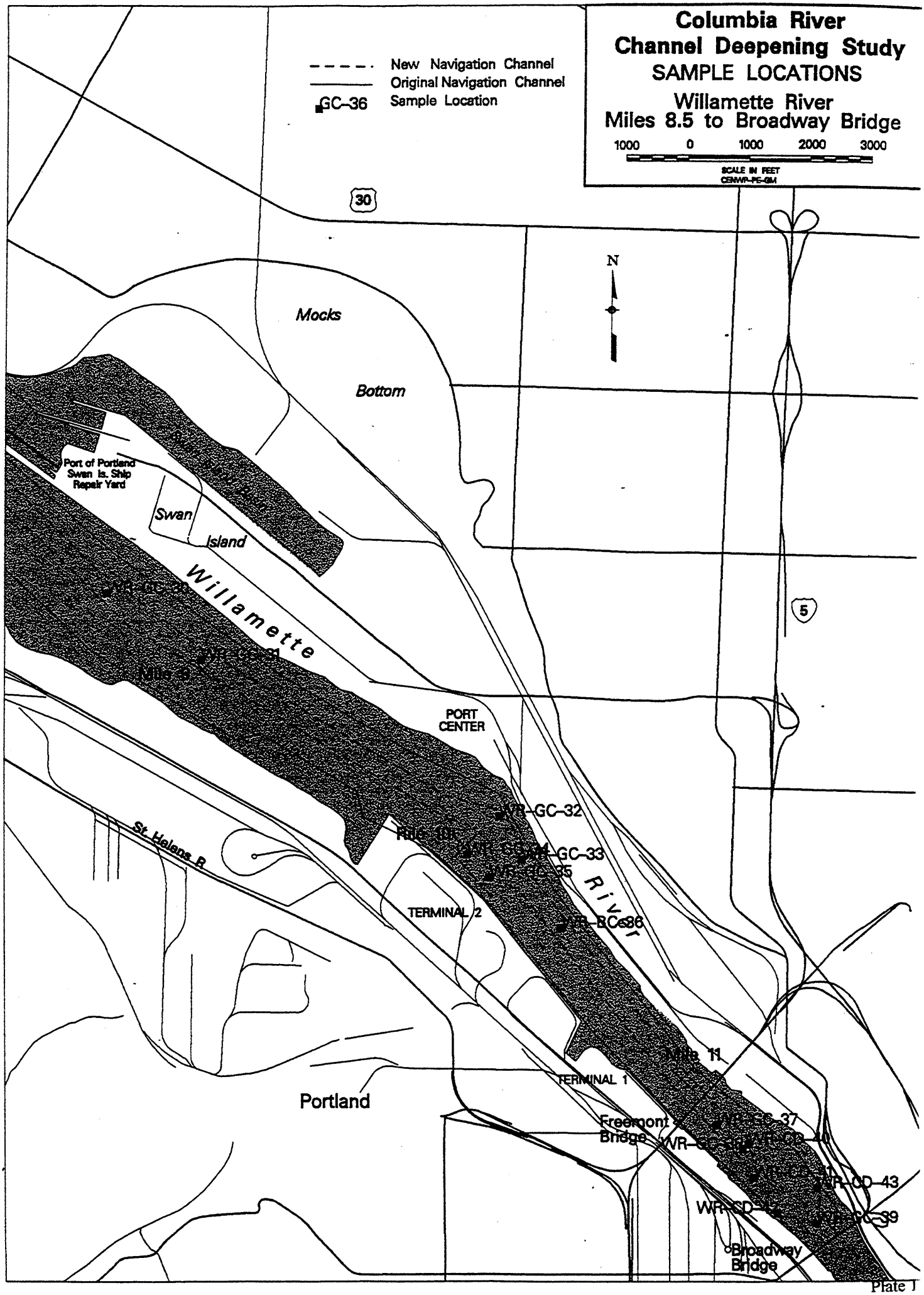
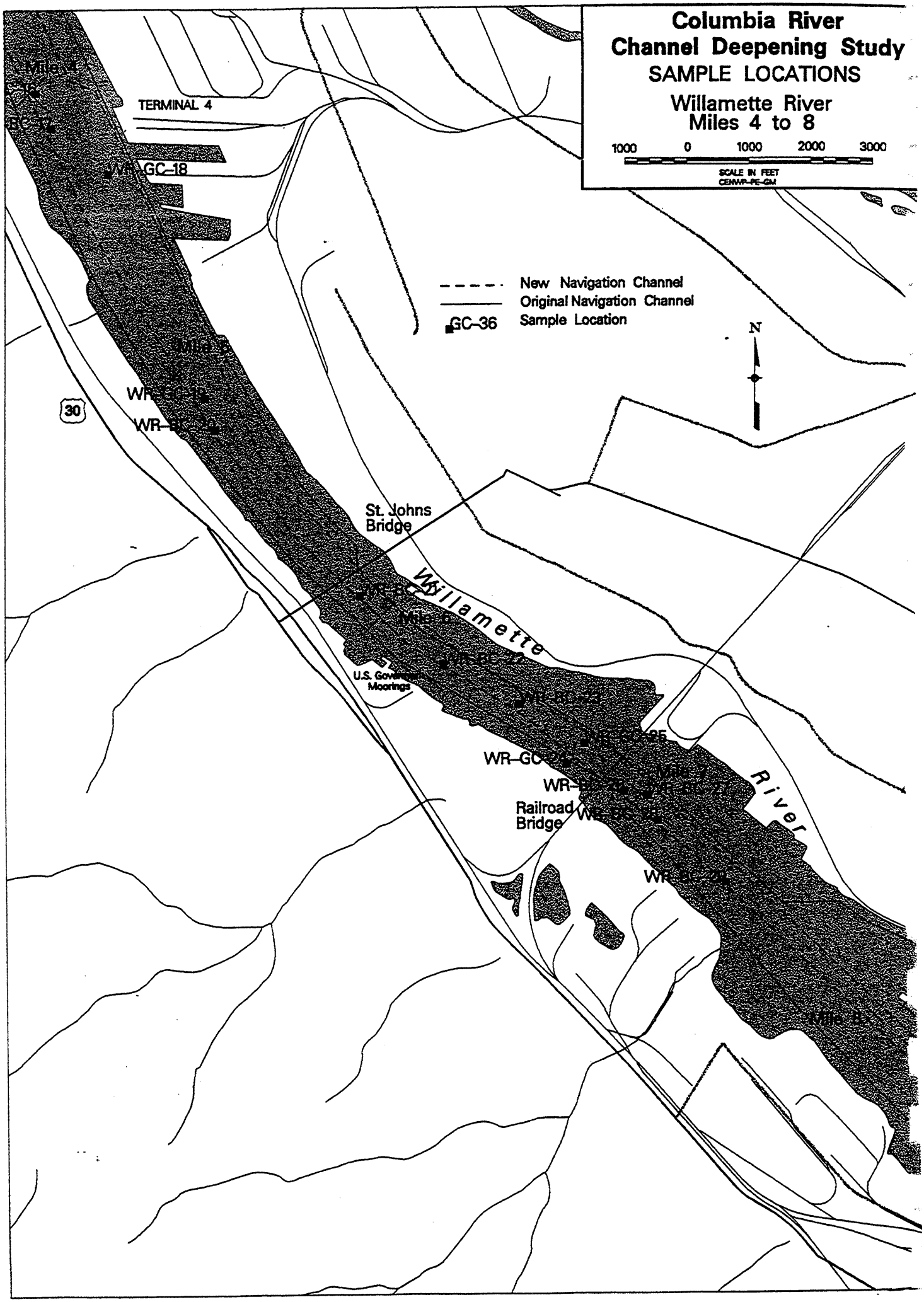
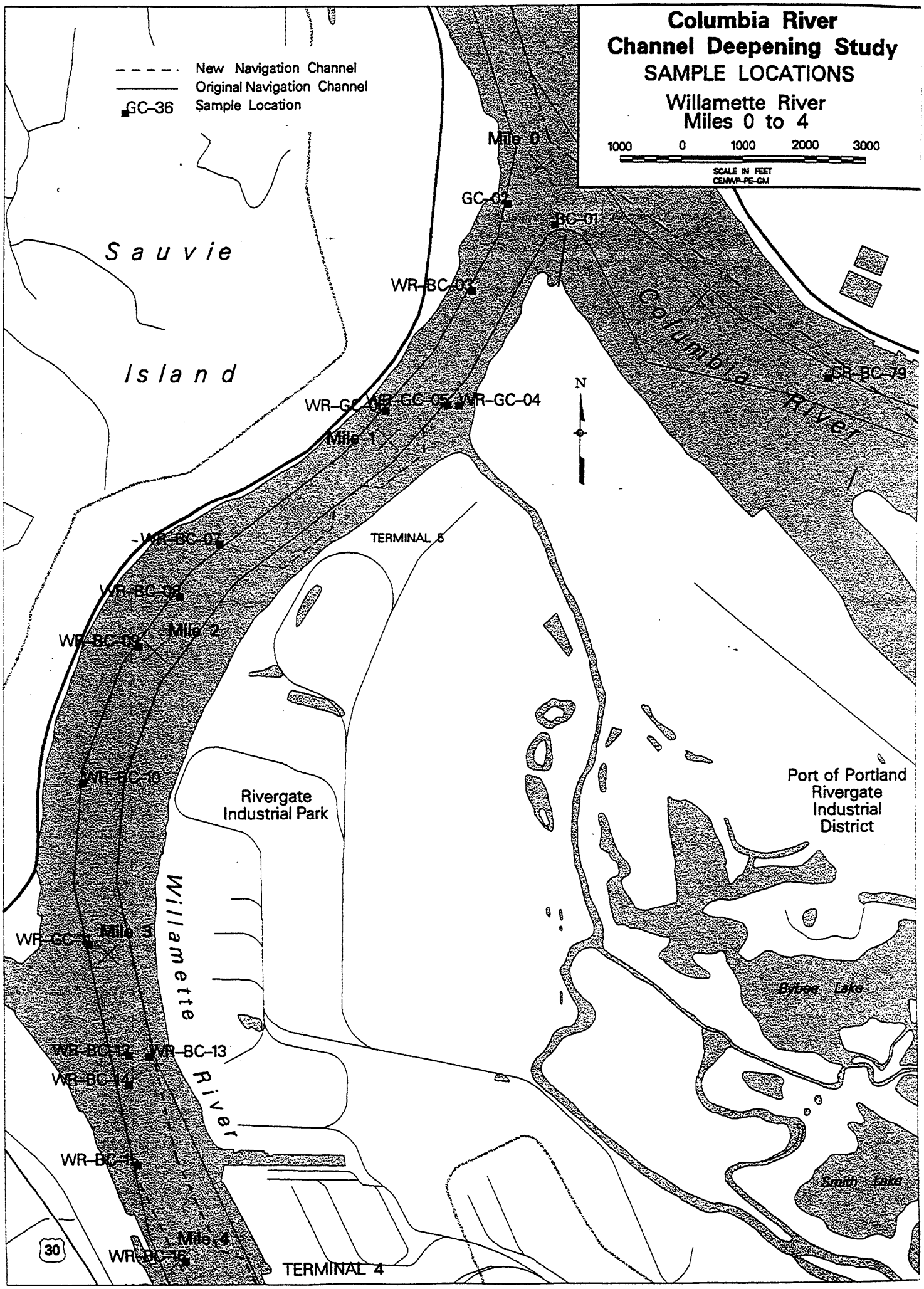
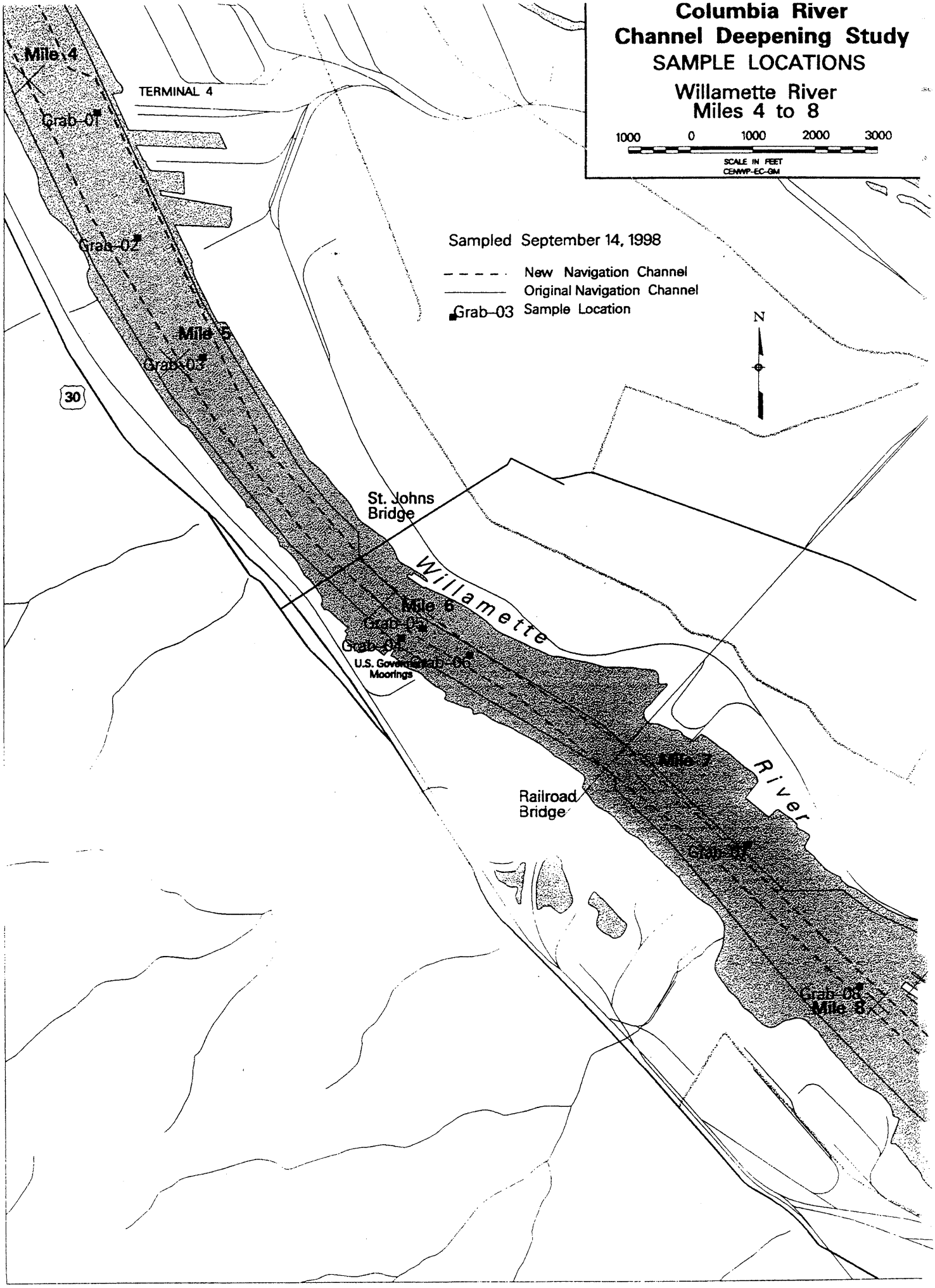

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Willamette River
Miles 8.5 to Broadway Bridge
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
New Navigation Channel
Original Navigation Channel
GC-36 Sample Location
30
N
Mocks
Bottom
Port of Portland
Swan Is. Ship
Repair Yard
Swan
Island
Willamette
Mile 9
PORT
CENTER
WR-GC-32
Mile 10
WR-GC-33
WR-GC-35
River
TERMINAL 2
St. Helens R
Mile 11
TERMINAL 1
Portland
Freemont
Bridge
WR-CD-43
WR-CD-39
Broadway
Bridge
5

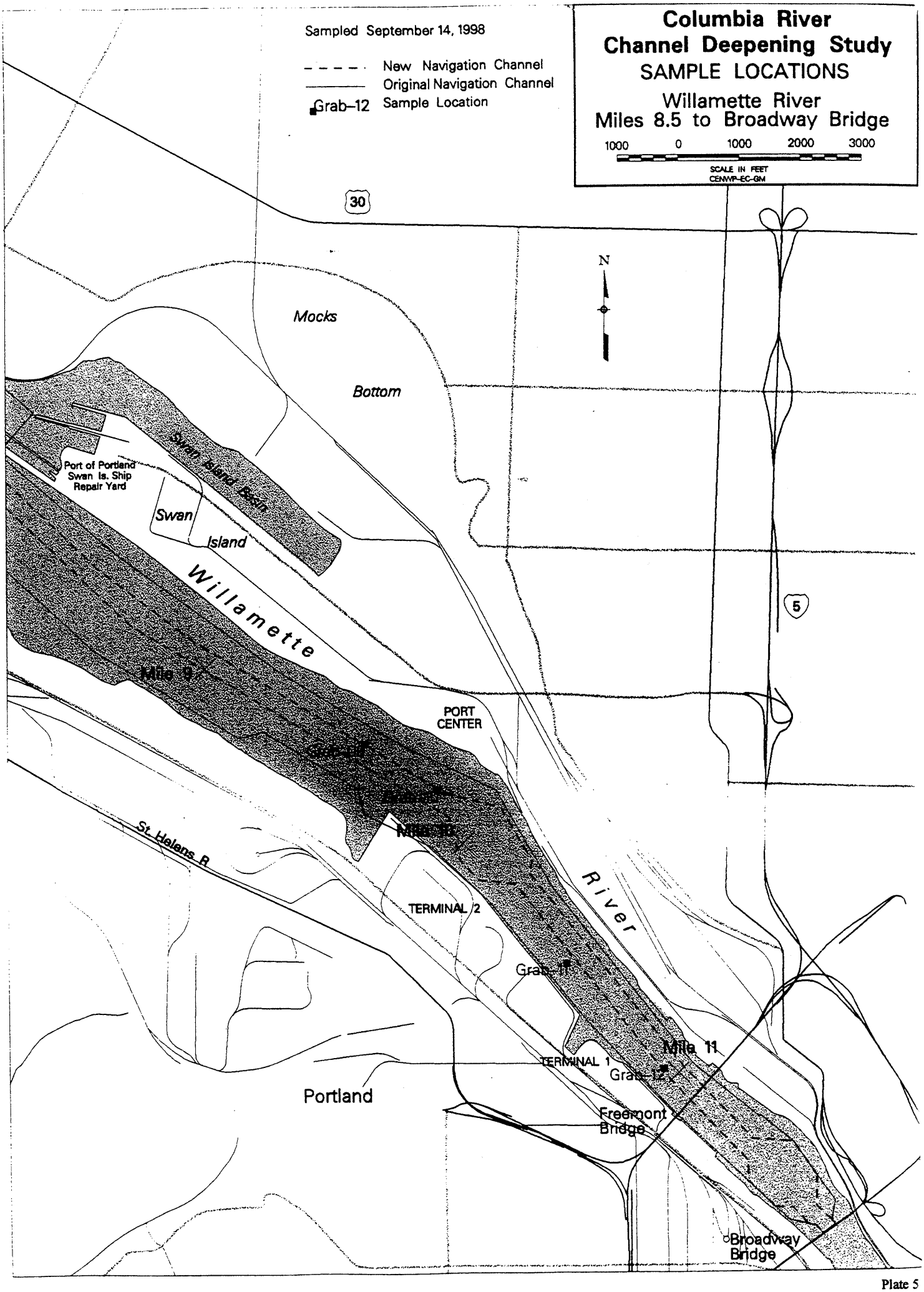
Plate 1

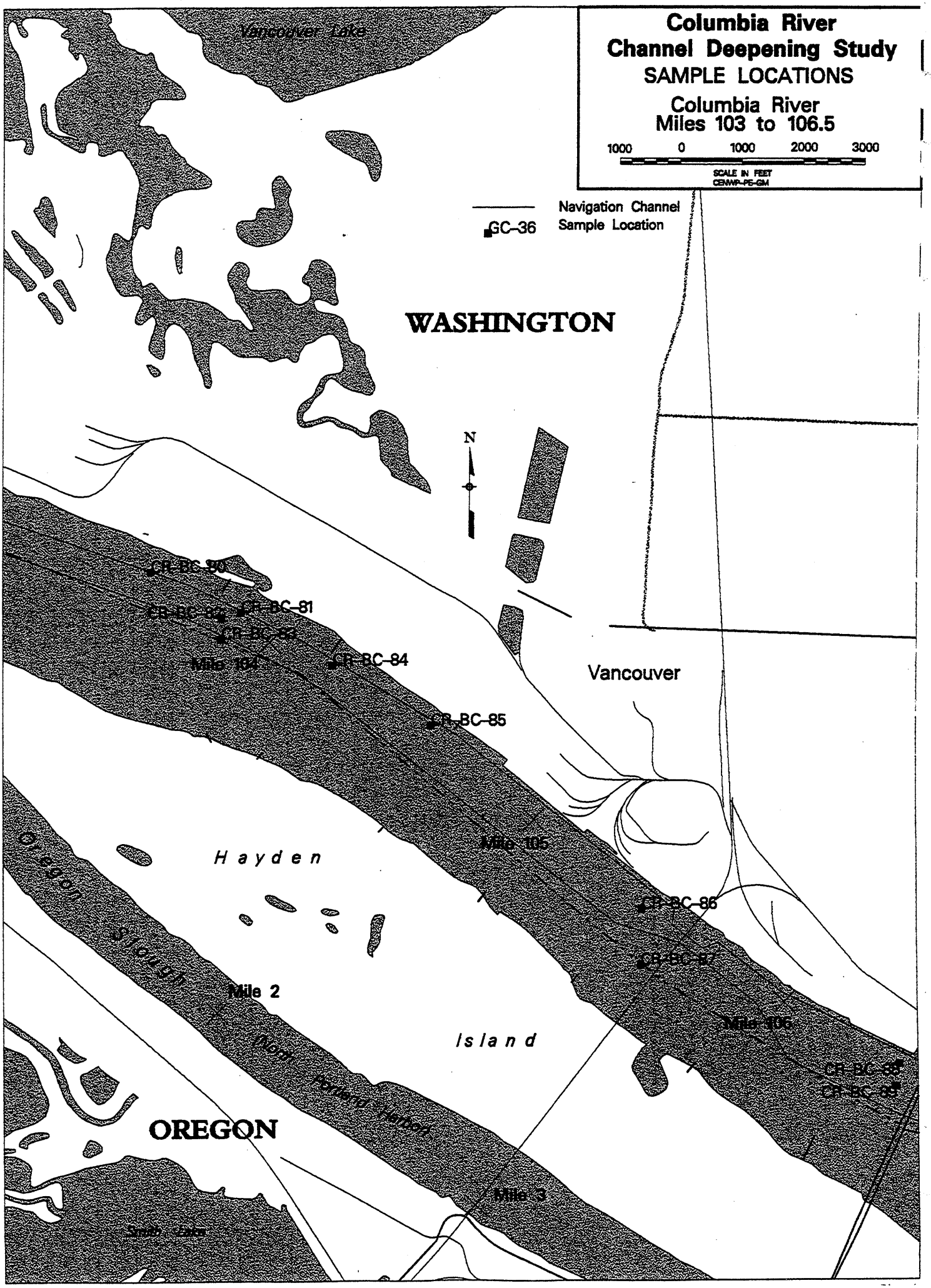

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Willamette River
Miles 4 to 8
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
New Navigation Channel
Original Navigation Channel
GC-36 Sample Location
N
TERMINAL 4
WR-GC-18
30
St. Johns Bridge
Willamette
River
U.S. Government Moorings
Railroad Bridge

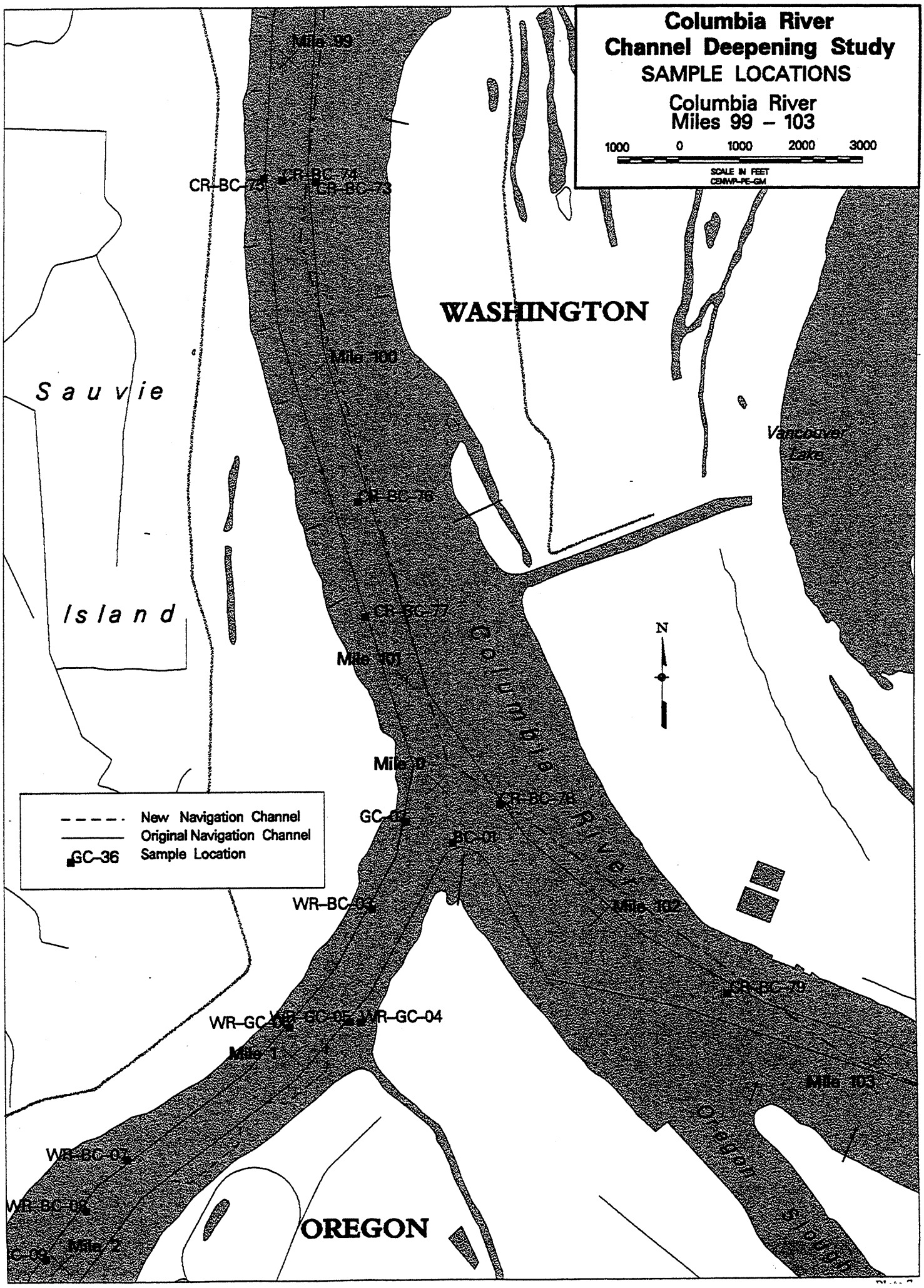

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Willamette River
Miles 0 to 4
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
New Navigation Channel
Original Navigation Channel
GC-36 Sample Location
Sauvie
Island
Mile 0
GC-02
BC-01
WR-BC-03
Columbia River
CR-BC-79
N
WR-GC-06
WR-GC-05
WR-GC-04
Mile 1
TERMINAL 5
WR-BC-07
WR-BC-08
WR-BC-09
Mile 2
WR-BC-10
Rivergate
Industrial Park
Port of Portland
Rivergate
Industrial
District
Willamette River
WR-GC-11
Mile 3
Bybee Lake
WR-BC-12
WR-BC-13
WR-BC-14
WR-BC-15
Smith Lake
Mile 4
WR-BC-16
TERMINAL 4
30

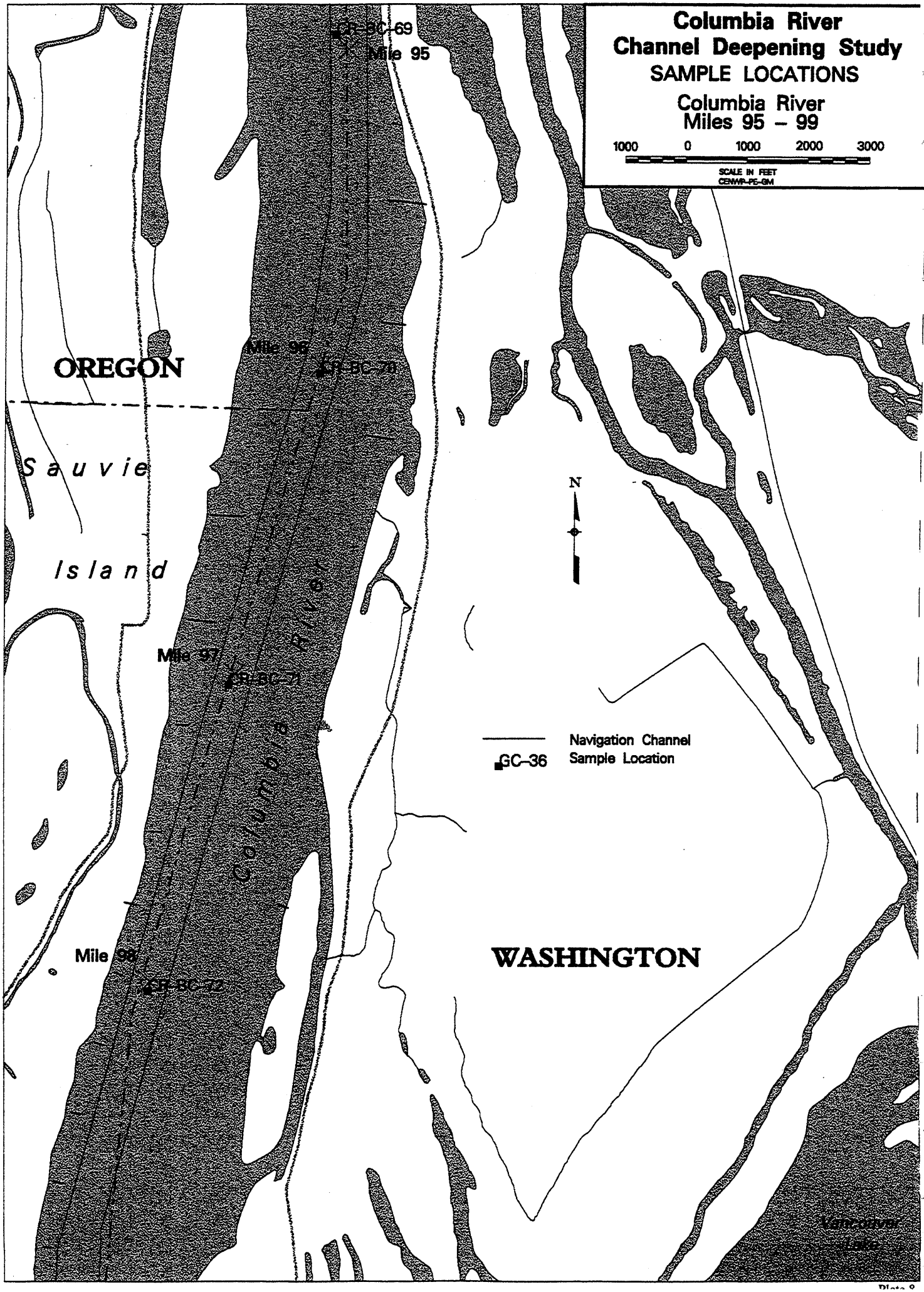

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Willamette River
Miles 4 to 8
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-EC-GM
Sampled September 14, 1998
New Navigation Channel
Original Navigation Channel
Grab-03 Sample Location
N
Mile 4
TERMINAL 4
Grab-01
Grab-02
Mile 5
Grab-03
30
St. Johns
Bridge
Willamette
River
Mile 6
Grab-04
Grab-05
Grab-06
U.S. Government
Moorings
Mile 7
Railroad
Bridge
Grab-07
Grab-08
Mile 8

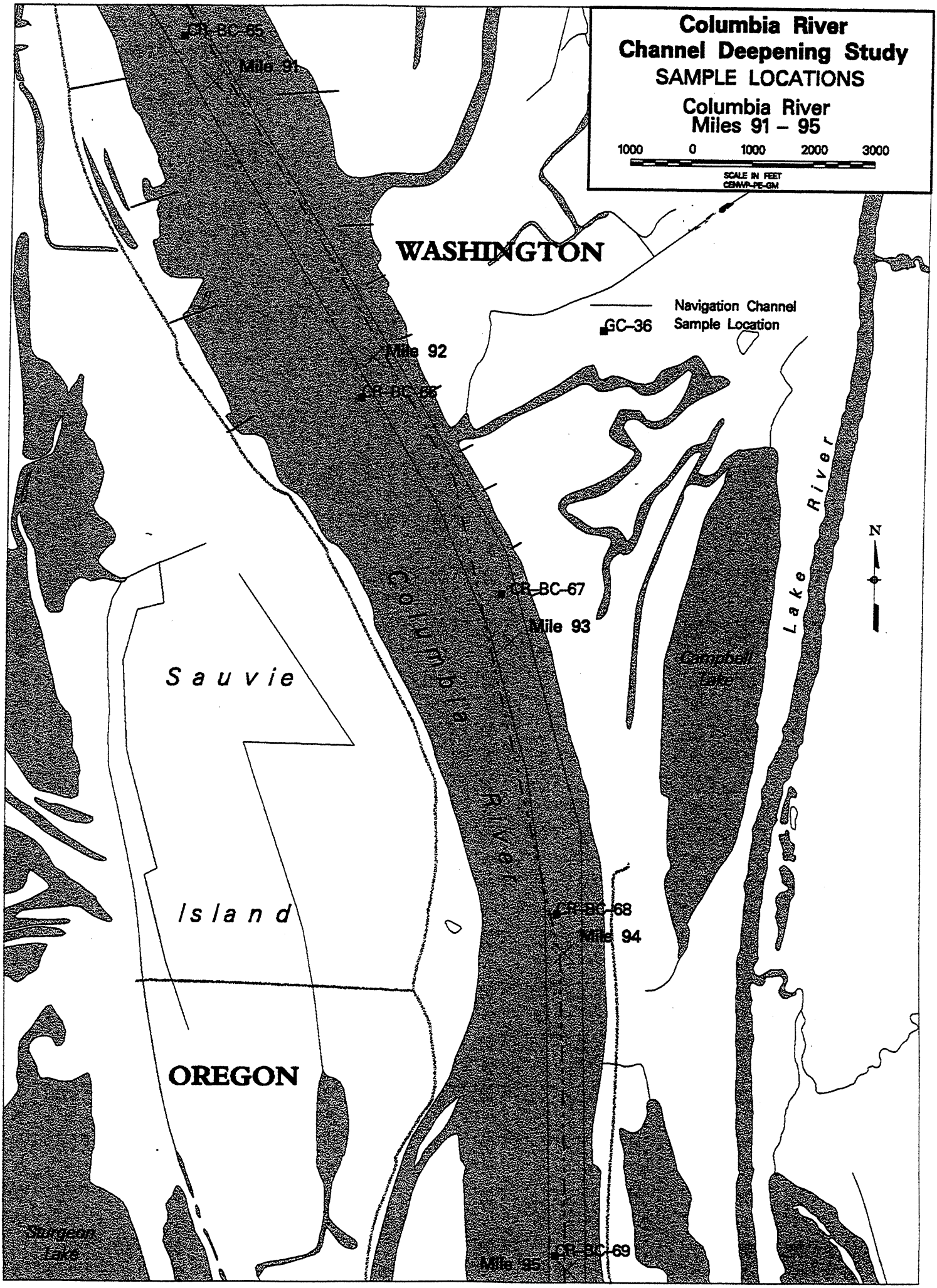
Plate

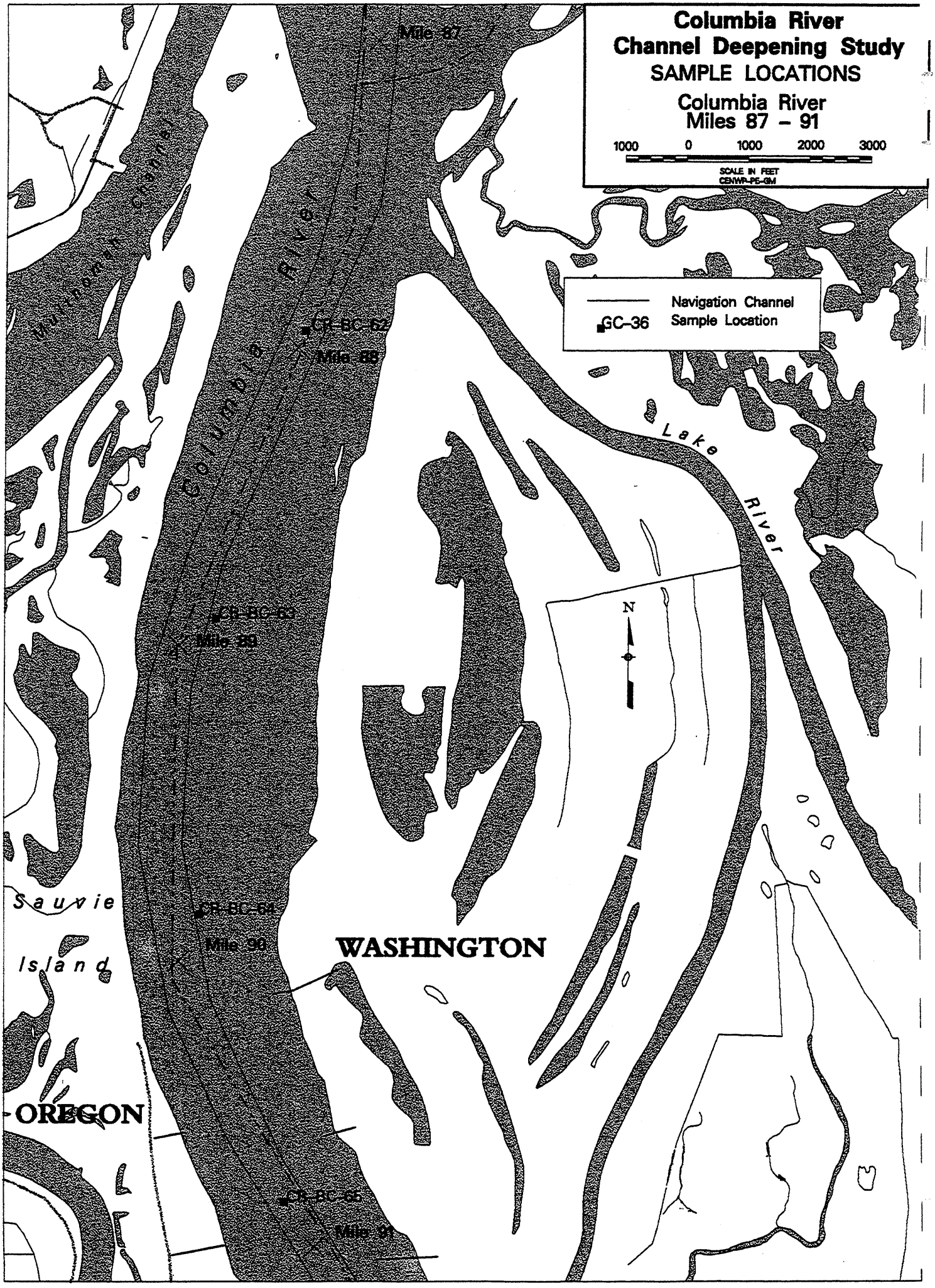

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Willamette River
Miles 8.5 to Broadway Bridge
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-EC-GM
Sampled September 14, 1998
New Navigation Channel
Original Navigation Channel
Grab-12 Sample Location
30
N
Mocks
Bottom
Swan Island Basin
Port of Portland
Swan Is. Ship
Repair Yard
Swan
Island
Willamette
Mile 9
PORT
CENTER
Mile 10
St. Helens R
River
TERMINAL 2
Grab-11
Mile 11
TERMINAL 1
Grab-12
Portland
Freemont
Bridge
Broadway
Bridge
5


Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 103 to 106.5
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36
Sample Location
Vancouver Lake
WASHINGTON
N
CR-BC-80
CR-BC-82
CR-BC-81
CR-BC-83
Mile 104
CR-BC-84
Vancouver
CR-BC-85
Mile 105
Hayden
Island
CR-BC-86
CR-BC-87
Mile 2
Mile 106
CR-BC-88
CR-BC-89
Oregon Slough
North Portland Harbor
OREGON
Mile 3
Smith Lake


Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 99 – 103
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Mile 99
CR-BC-75
CR-BC-74
CR-BC-73
WASHINGTON
Mile 100
Sauvie
Island
Vancouver Lake
CR-BC-76
CR-BC-77
Mile 101
Columbia River
N
Mile 0
CR-BC-78
GC-01
BC-01
New Navigation Channel
Original Navigation Channel
GC-36 Sample Location
WR-BC-03
Mile 102
CR-BC-79
WR-GC-05
WR-GC-04
Mile 1
Mile 103
Oregon
WR-BC-07
WR-BC-08
Mile 2
OREGON


Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 95 – 99
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
CR-BC-69
Mile 95
Mile 96
CR-BC-70
OREGON
Sauvie
Island
N
Mile 97
CR-BC-71
Navigation Channel
GC-36
Sample Location
Columbia River
Mile 98
CR-BC-72
WASHINGTON
Vancouver
Lake


Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 91 – 95
1000 0 1000 2000 3000
SCALE IN FEET
CBWP-PE-GM
WASHINGTON
Navigation Channel
Sample Location
GC-36
CR-BC-65
Mile 91
Mile 92
CR-BC-66
CR-BC-67
Mile 93
CR-BC-68
Mile 94
CR-BC-69
Mile 95
Columbia River
Sauvie
Island
OREGON
Campbell Lake
Lake River
Sturgeon Lake
N


Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 87 - 91
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36 Sample Location
Mile 87
CR-BC-62
Mile 88
CR-BC-63
Mile 89
CR-BC-64
Mile 90
CR-BC-65
Mile 91
Multnomah Channel
Columbia River
Lake River
Sauvie Island
WASHINGTON
OREGON
N

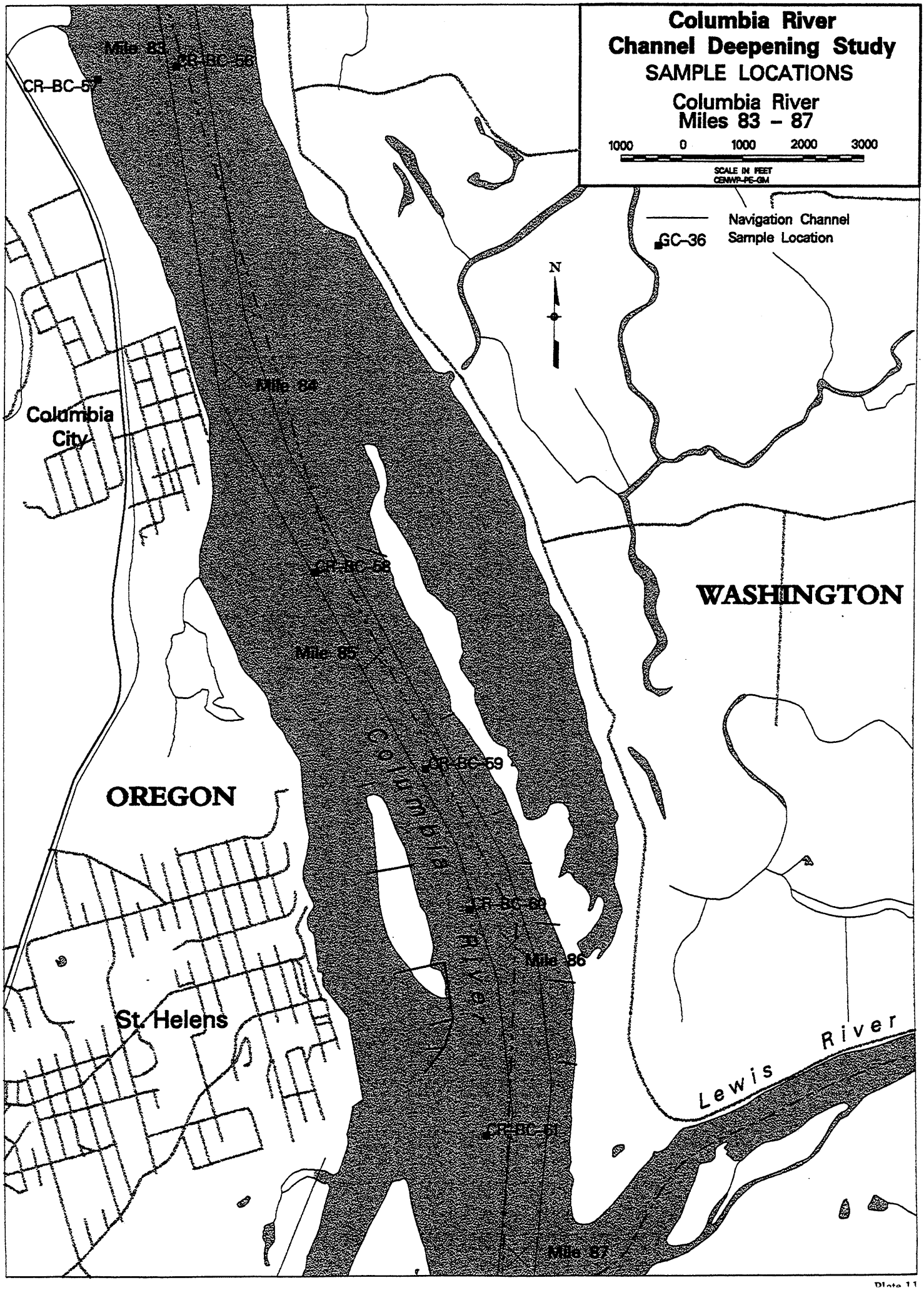

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 83 - 87
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36 Sample Location
N
Mile 83
CR-BC-56
CR-BC-57
Mile 84
Columbia City
CR-BC-58
Mile 85
CR-BC-59
Columbia
OREGON
WASHINGTON
CR-BC-60
Mile 86
St. Helens
Lewis River
CR-BC-61
Mile 87

Plate 11

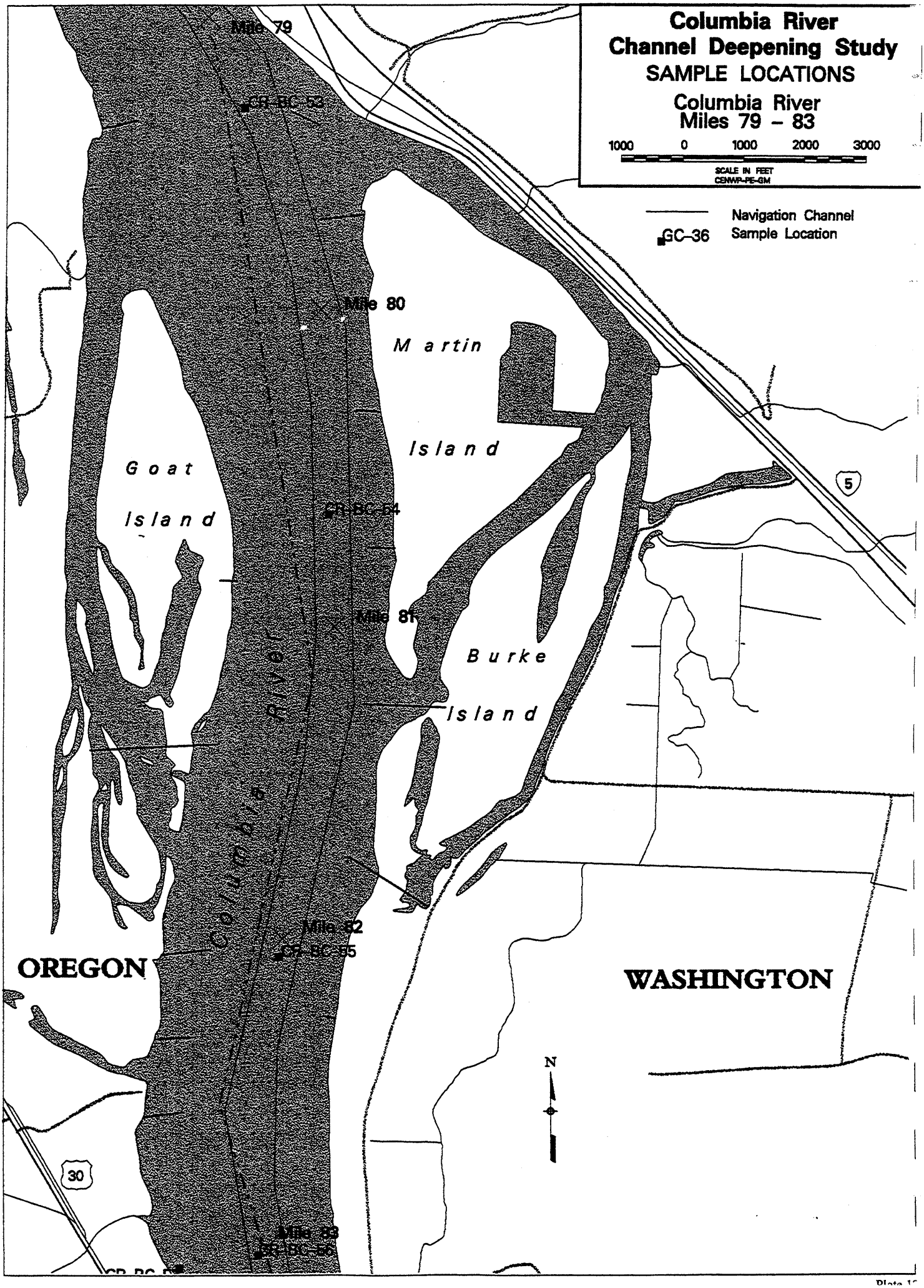
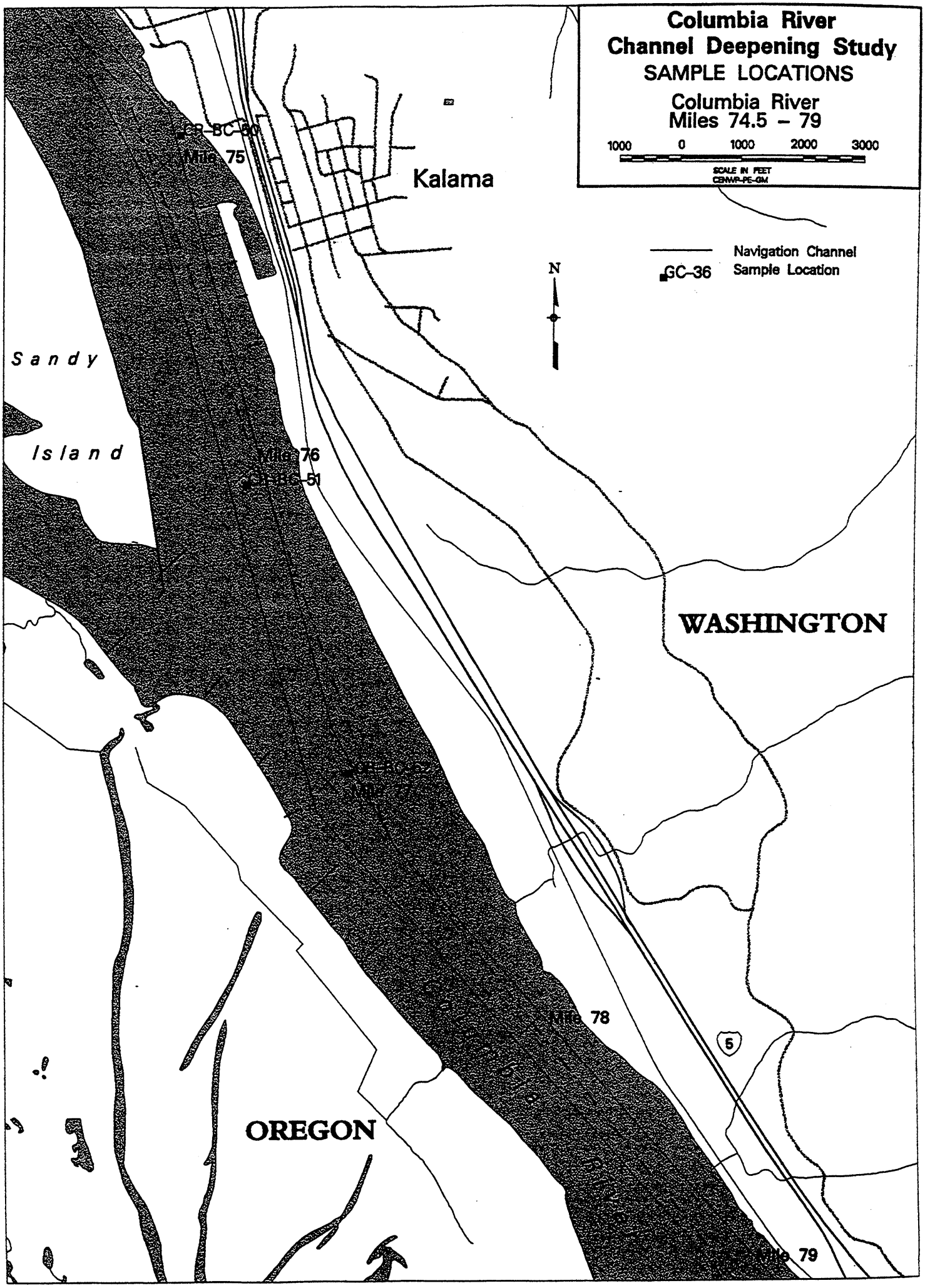
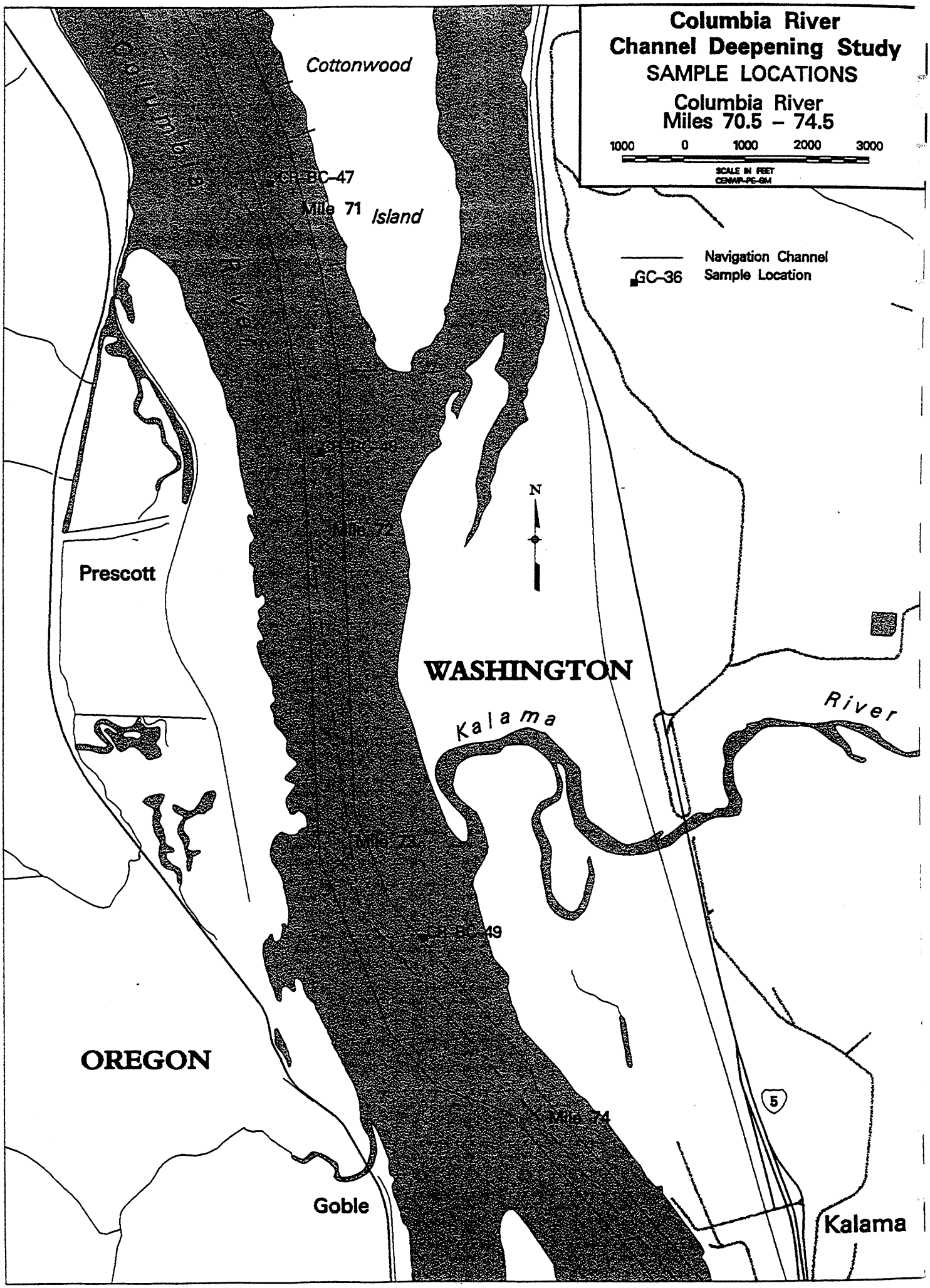
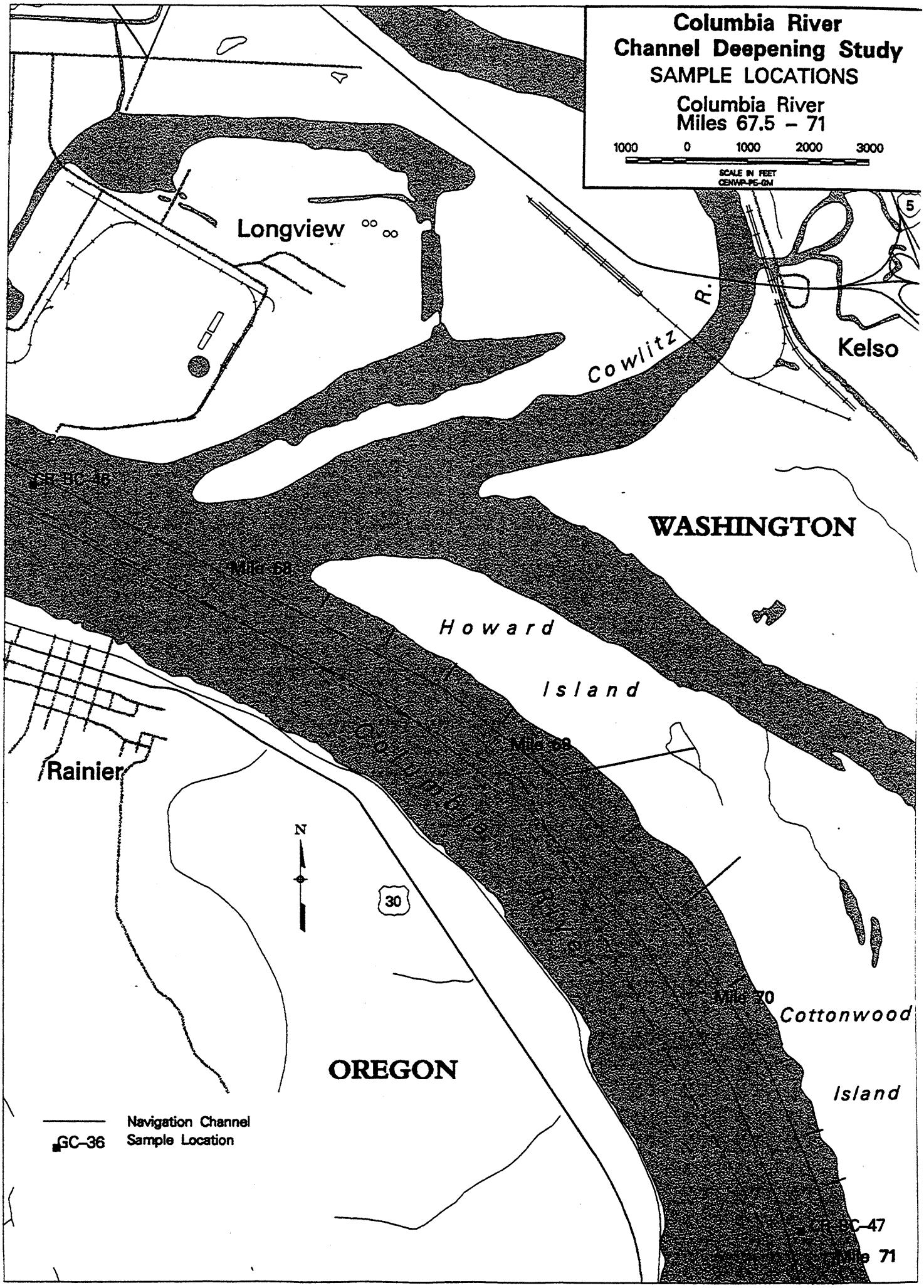
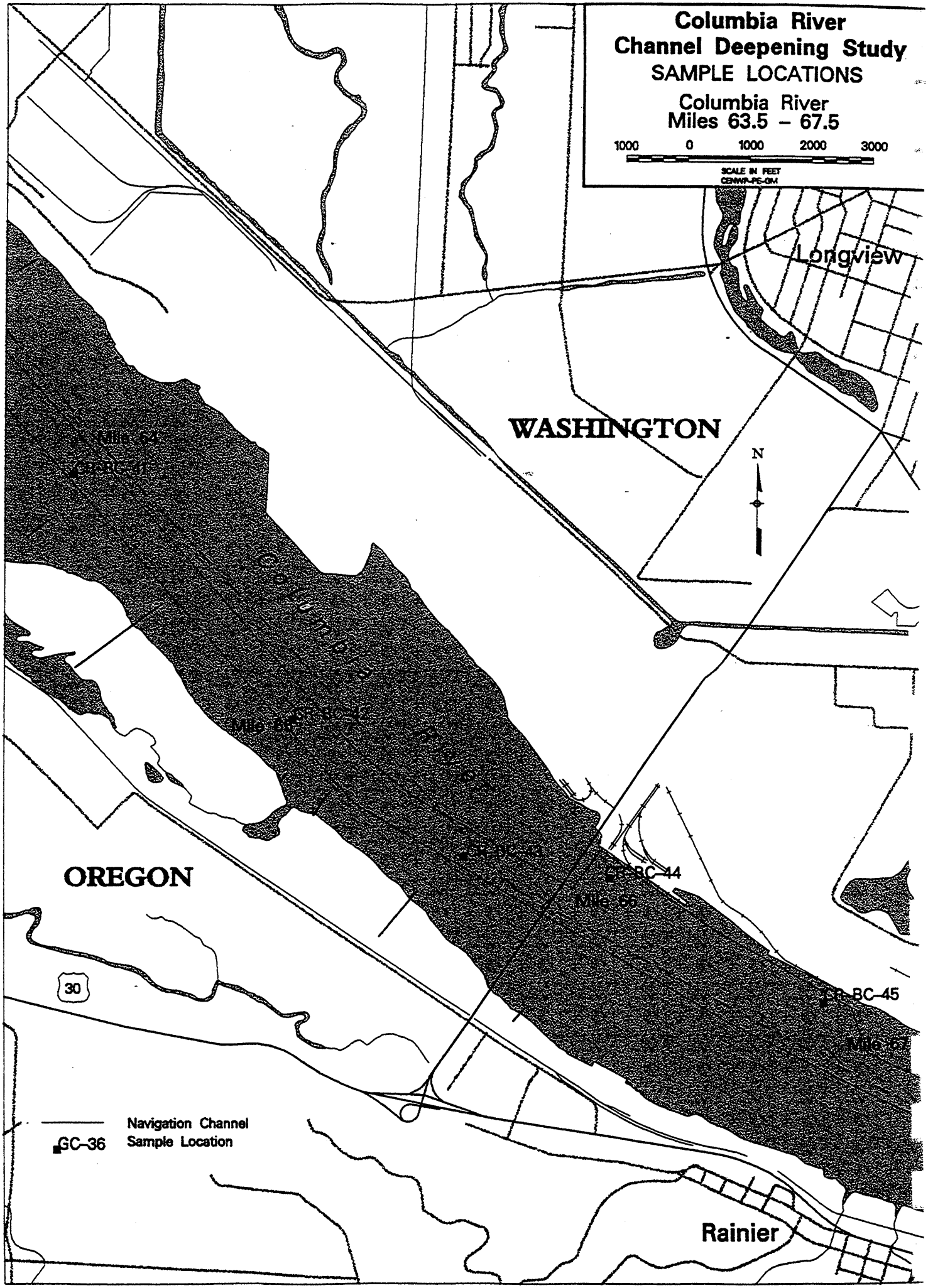

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 79 - 83
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36 Sample Location
Mile 79
CR-BC-53
Mile 80
Martin
Island
Goat
Island
CR-BC-54
Mile 81
Burke
Island
Columbia River
Mile 82
CR-BC-55
OREGON
WASHINGTON
N
5
30
Mile 83
CR-BC-56

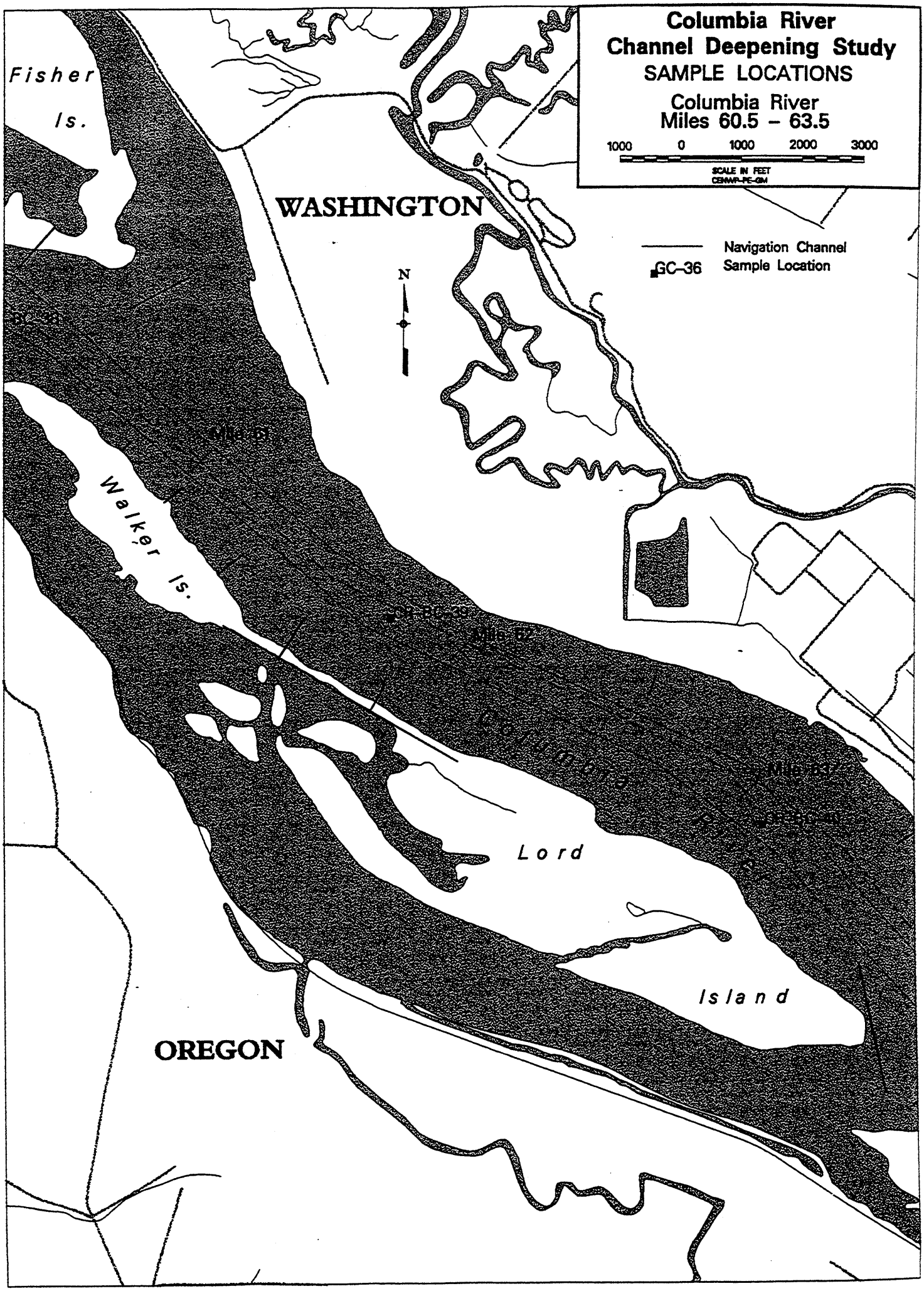
Plate 1

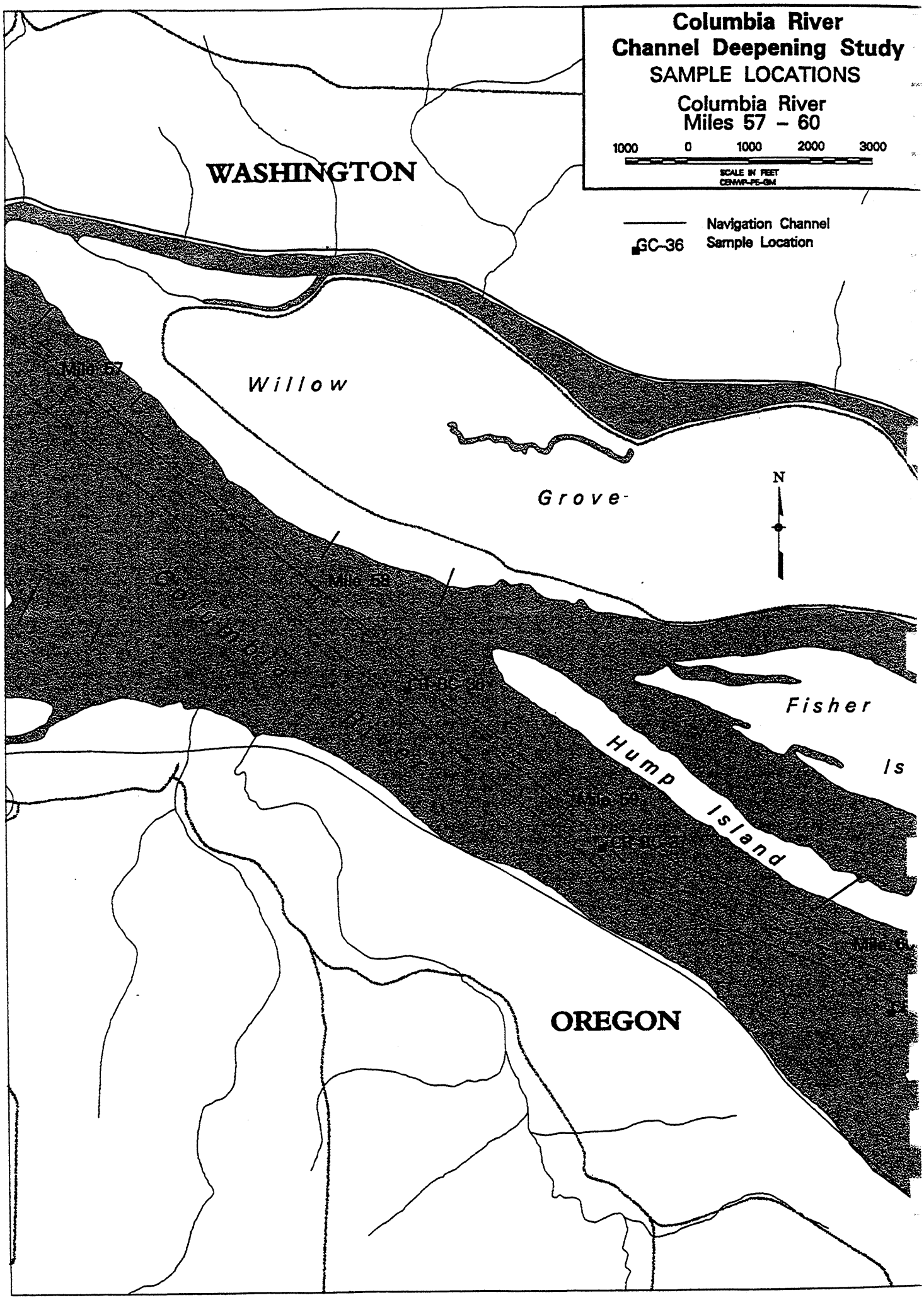

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 74.5 – 79
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36 Sample Location
N
Kalama
Mile 75
Sandy
Island
Mile 76
WASHINGTON
Mile 78
5
OREGON
Mile 79

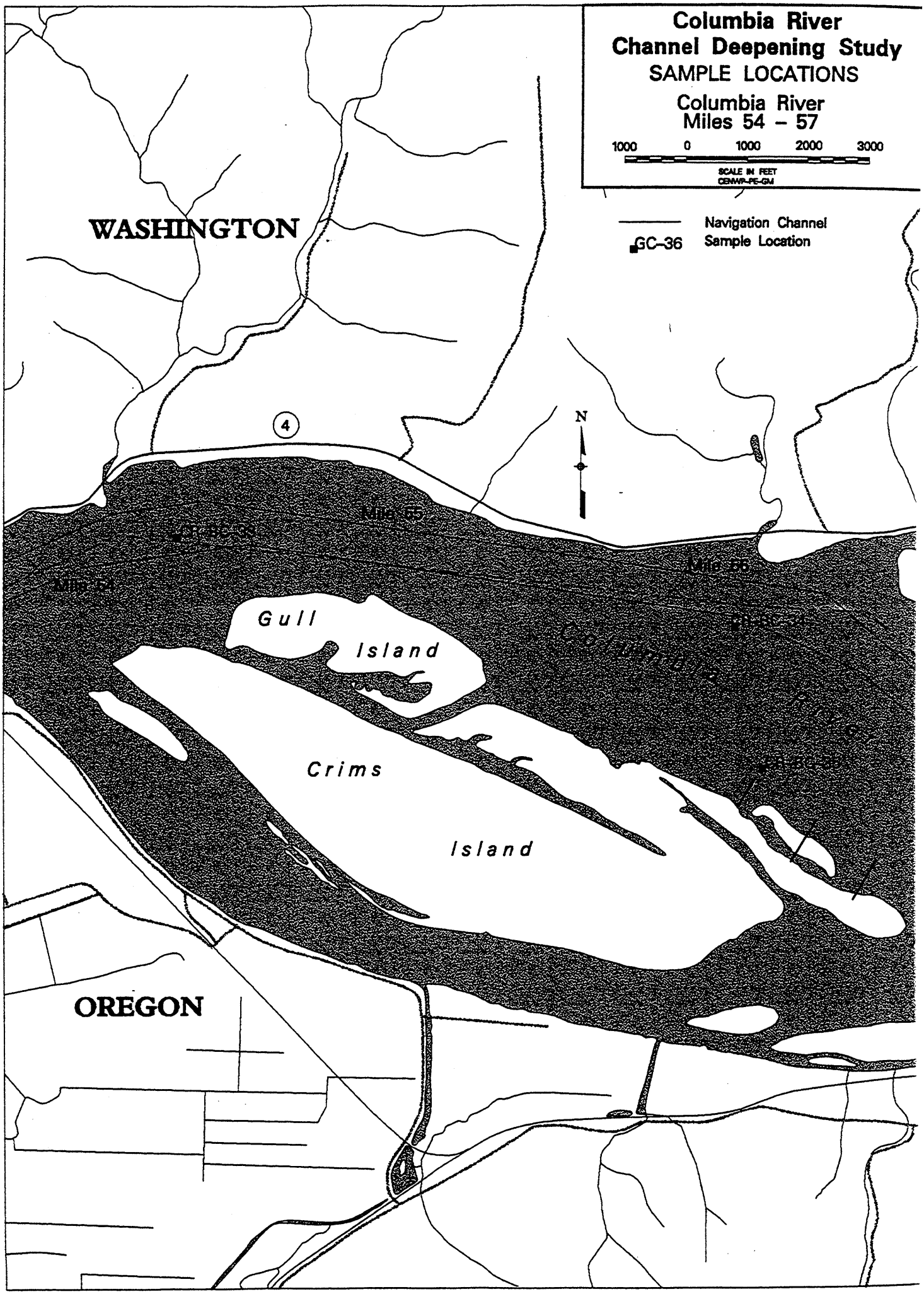

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 70.5 – 74.5
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36 Sample Location
Cottonwood
Island
Columbia
River
GC-BC-47
Mile 71
GC-BC-48
Mile 72
Mile 73
GC-BC-49
Mile 74
N
Prescott
WASHINGTON
OREGON
Kalama
River
5
Goble
Kalama

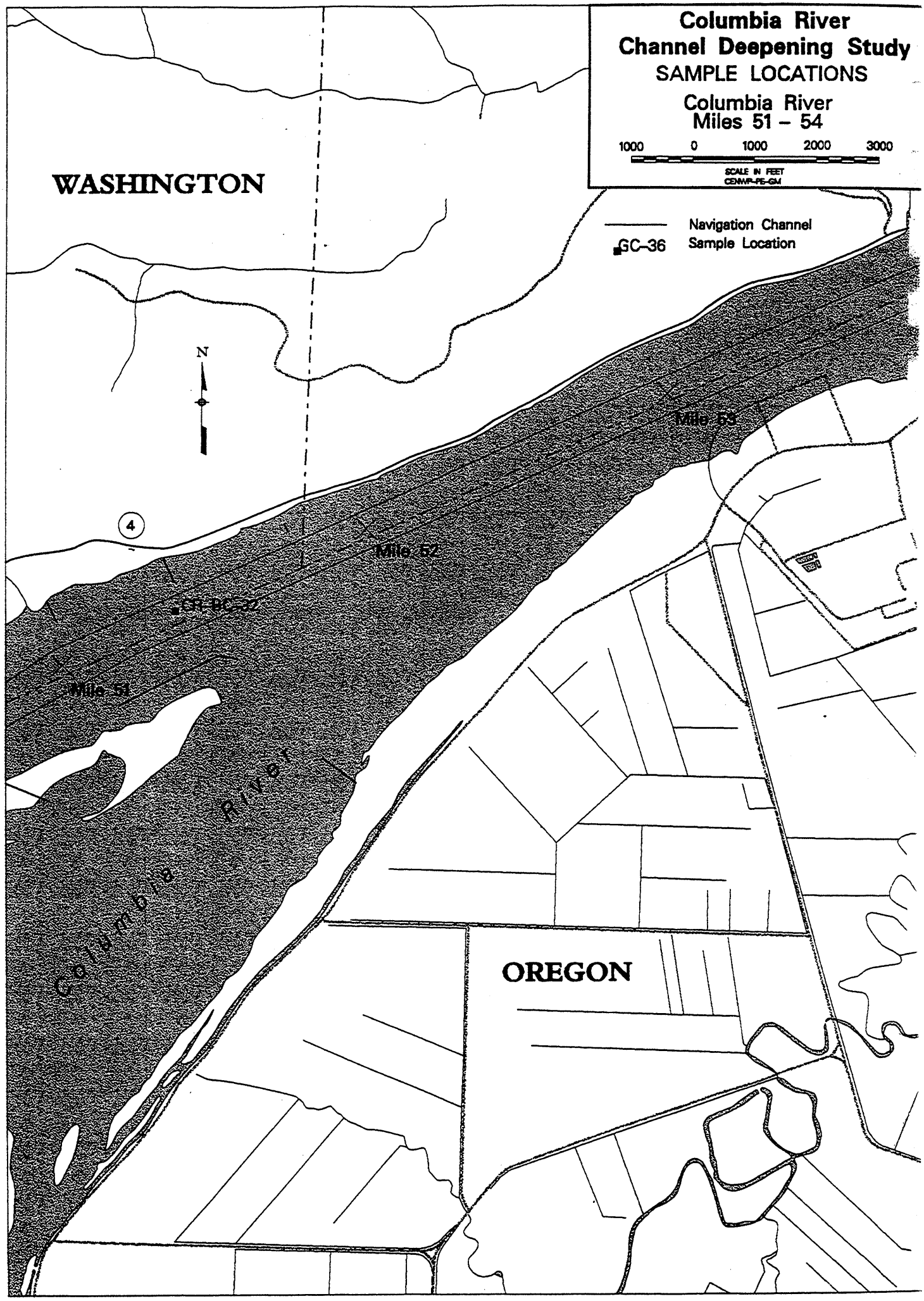

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 67.5 – 71
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Longview
Cowlitz R.
Kelso
5
GR-BC-46
WASHINGTON
Mile 68
Howard
Island
Mile 69
Rainier
N
30
Mile 70
Cottonwood
Island
OREGON
Navigation Channel
GC-36 Sample Location
GR-BC-47
Mile 71

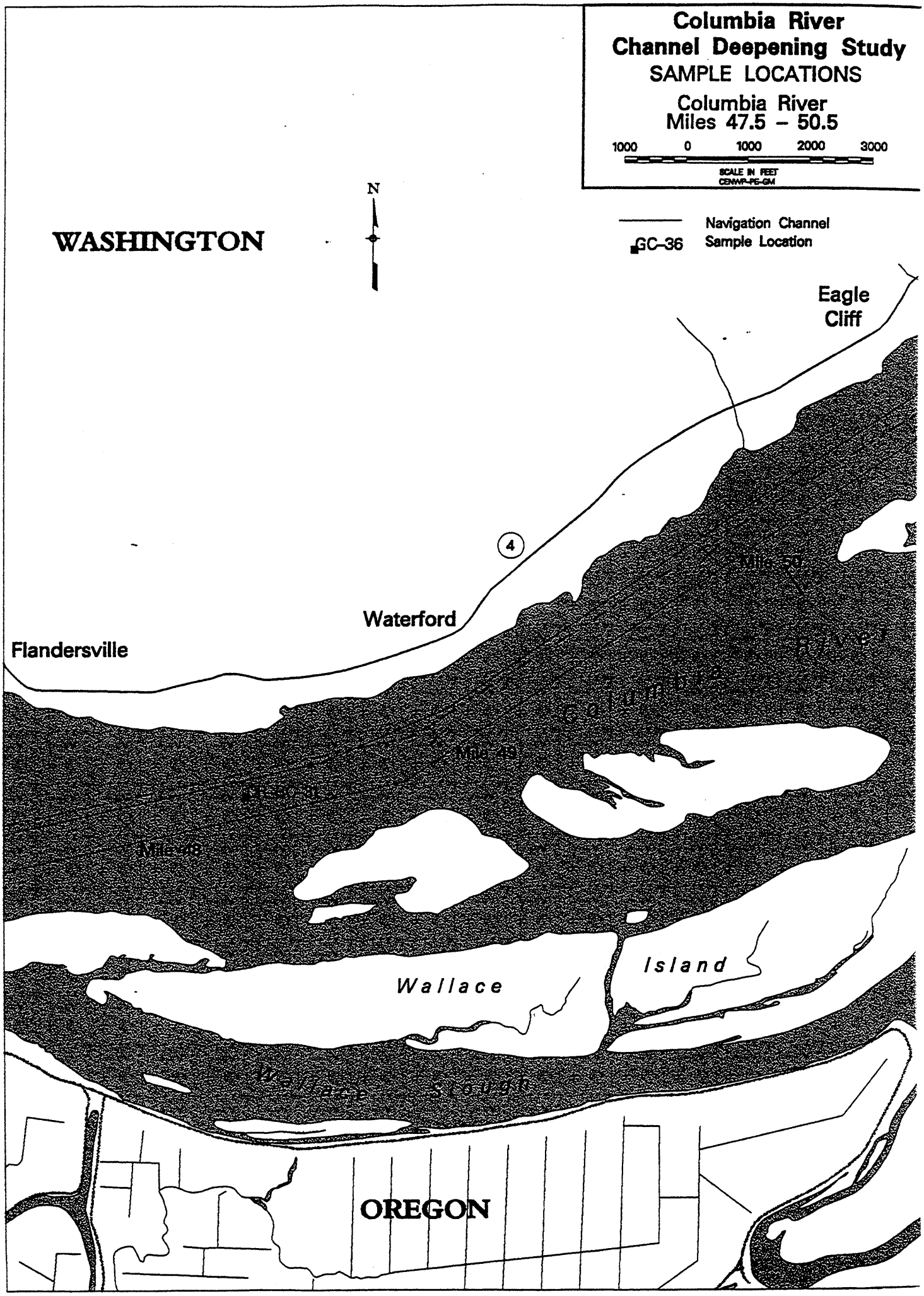

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 63.5 – 67.5
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Longview
WASHINGTON
N
Mile 64
CR-BC-41
Columbia River
Mile 65
CR-BC-42
CR-BC-43
CR-BC-44
Mile 66
OREGON
30
CR-BC-45
Mile 67
Navigation Channel
GC-36 Sample Location
Rainier

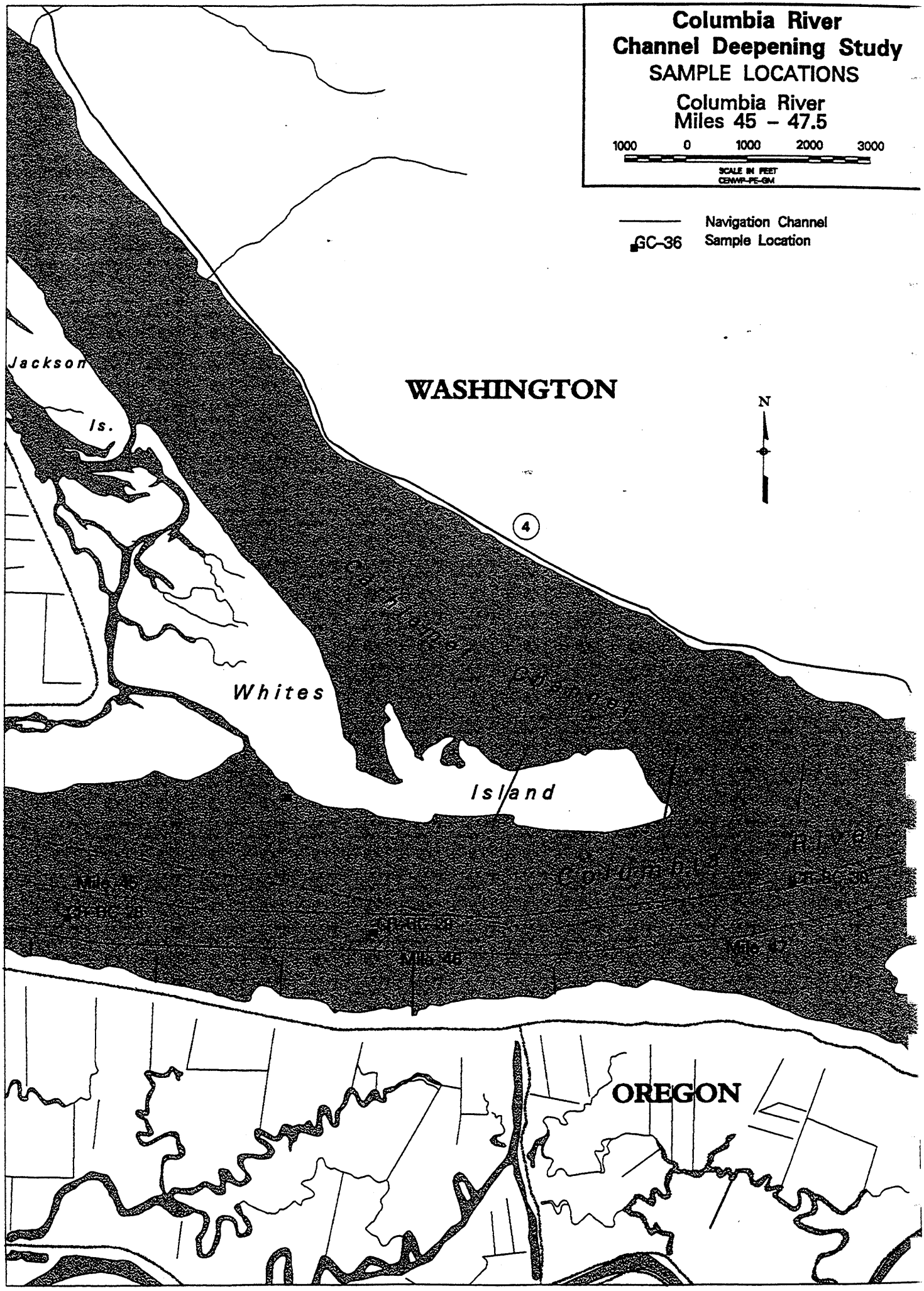

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 60.5 – 63.5
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36 Sample Location
N
WASHINGTON
OREGON
Fisher Is.
Walker Is.
Lord Island
Mile 61
Mile 62
Mile 63

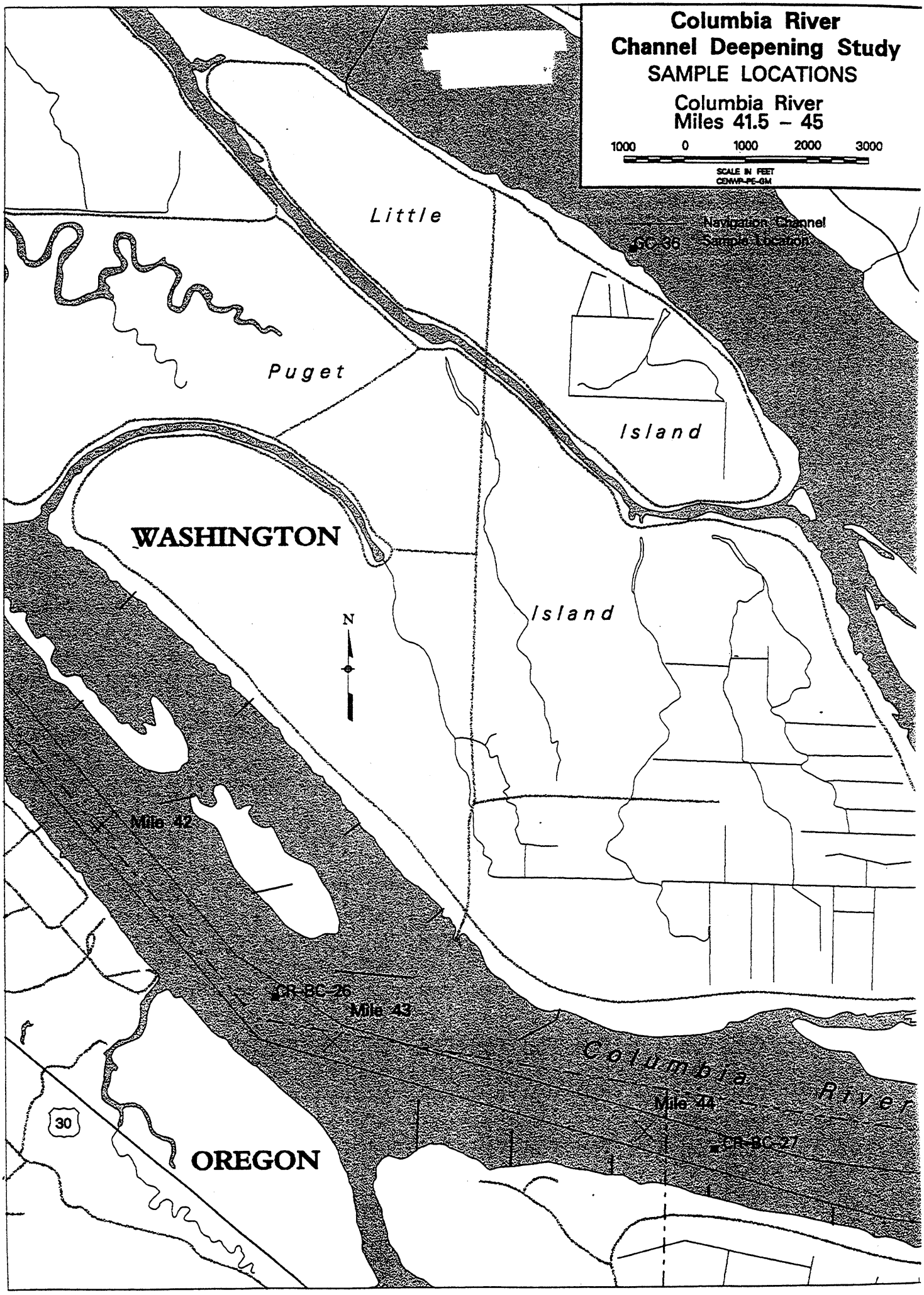

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 57 – 60
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36 Sample Location
WASHINGTON
Willow
Grove
N
Mile 57
Mile 58
Fisher
Is
Hump Island
Mile 59
OREGON

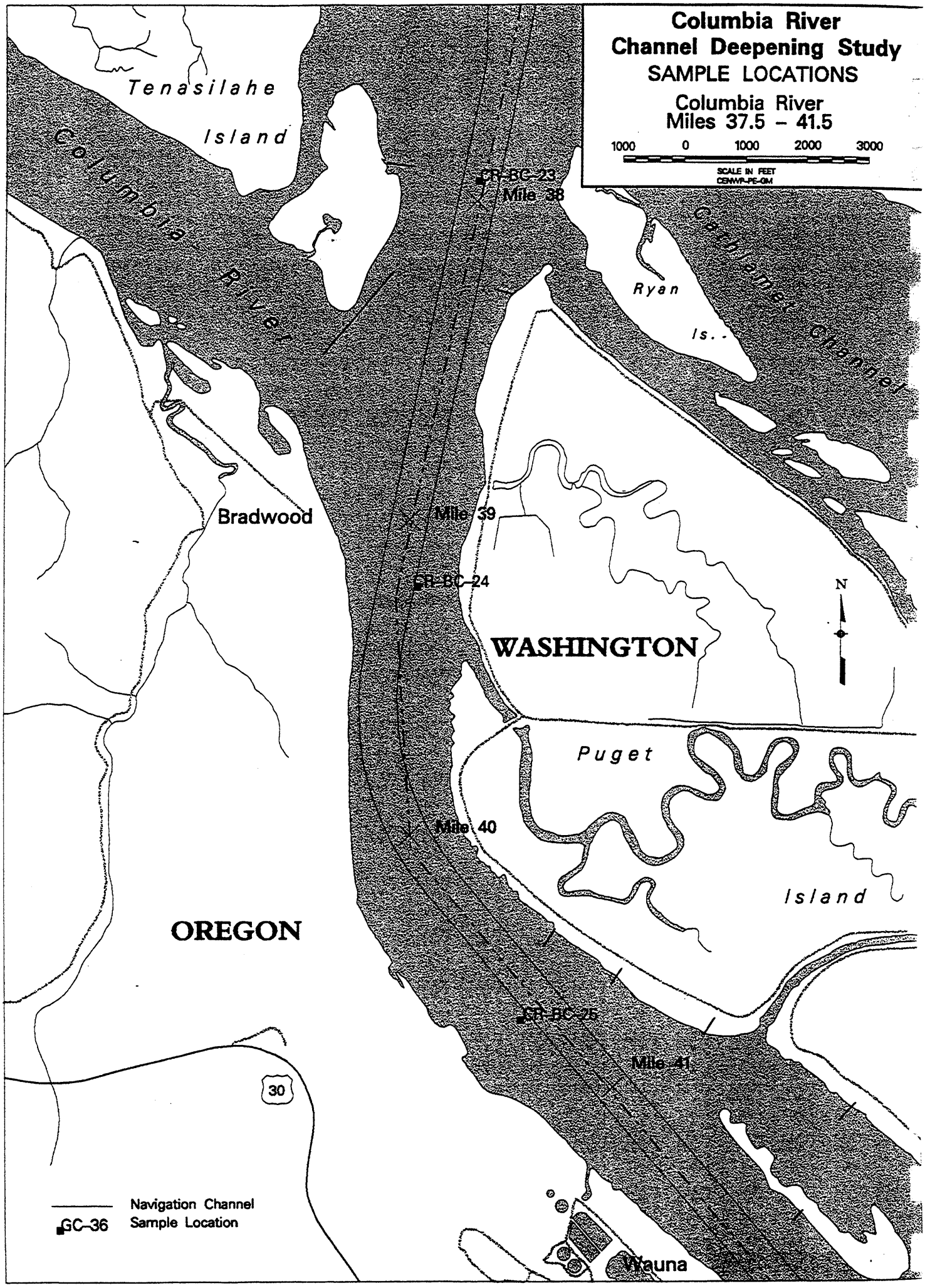

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 54 - 57
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36 Sample Location
WASHINGTON
OREGON
4
N
Mile 55
Mile 56
Mile 54
Gull
Island
Crims
Island

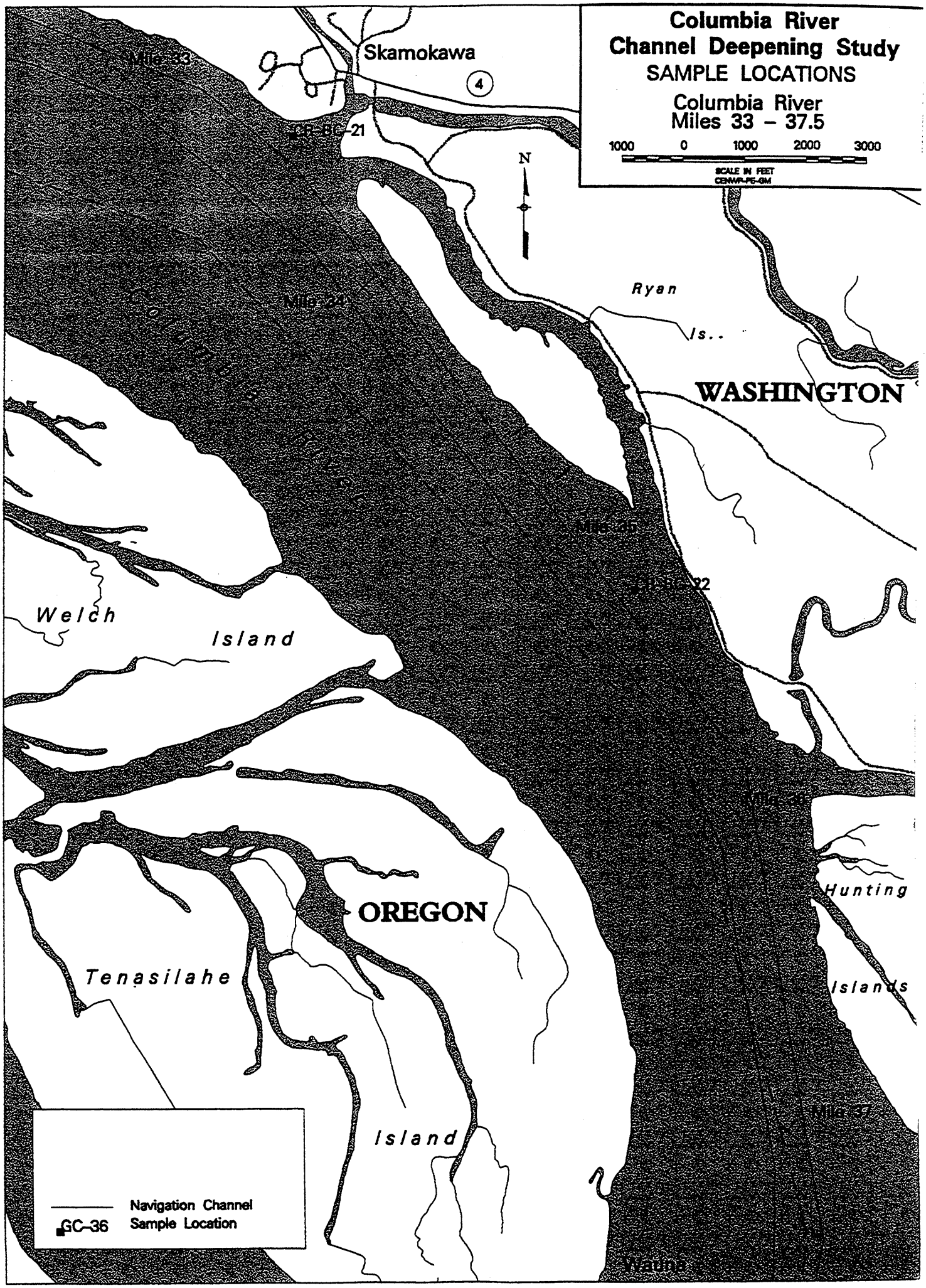

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 51 – 54
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36 Sample Location
WASHINGTON
N
4
Mile 53
Mile 52
Mile 51
Columbia River
OREGON

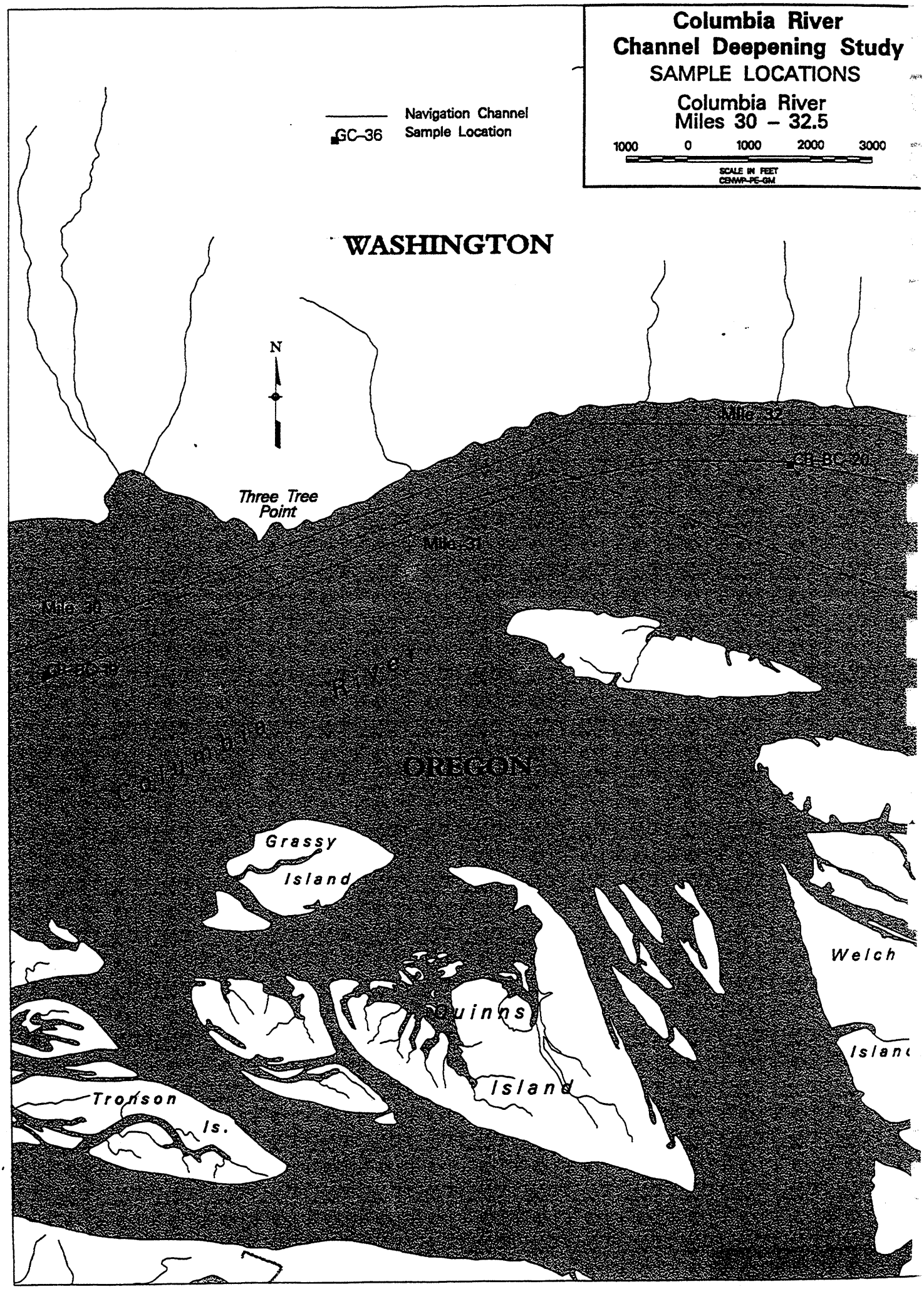

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 47.5 – 50.5
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
N
Navigation Channel
GC-36 Sample Location
WASHINGTON
Eagle Cliff
4
Waterford
Flandersville
Mile 50
Columbia River
Mile 49
Mile 48
Wallace Island
Wallace Slough
OREGON

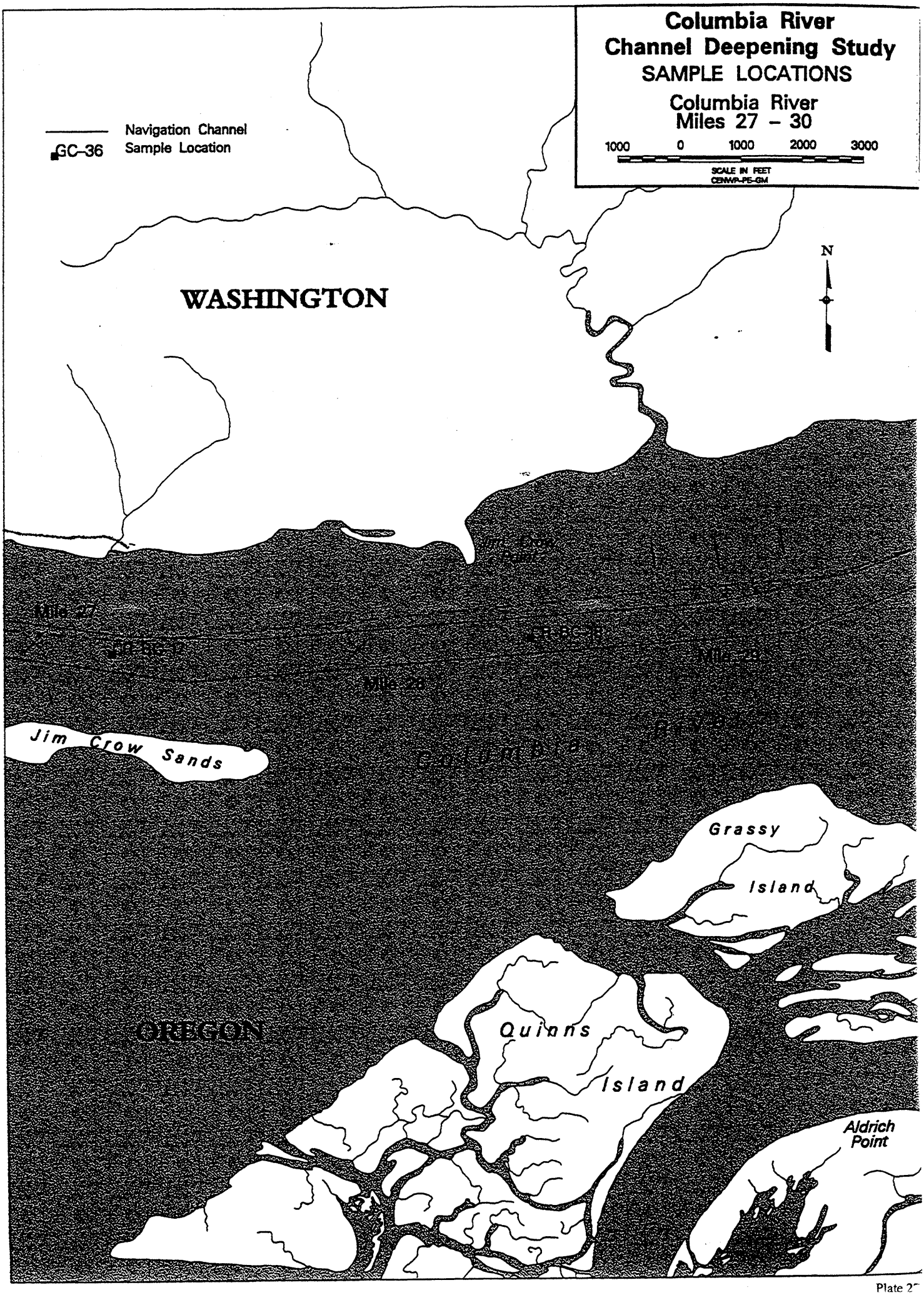

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 45 – 47.5
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36 Sample Location
WASHINGTON
N
4
Jackson
Is.
Whites
Island
Columbia
River
Mile 46
Mile 47
OREGON

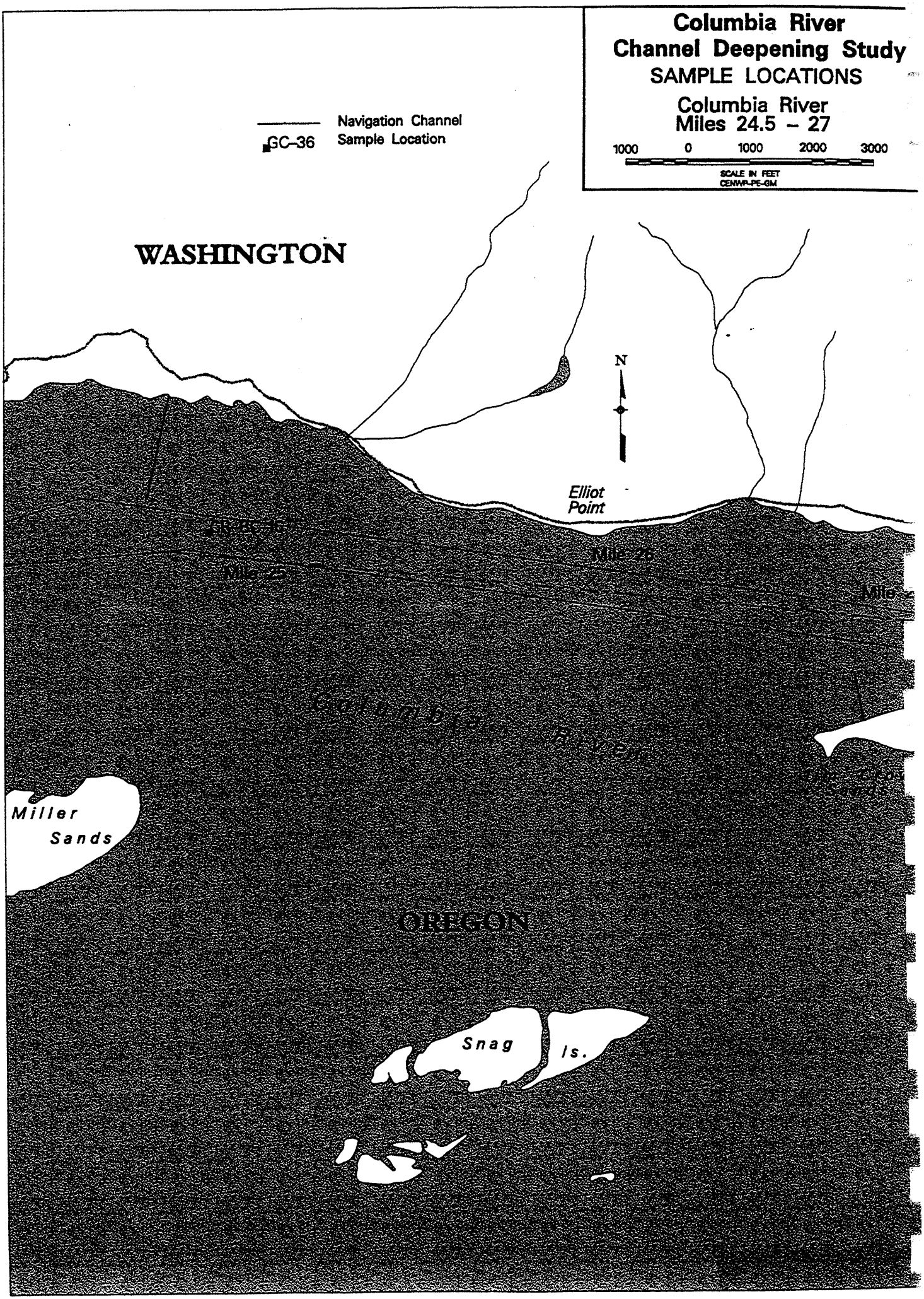

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 41.5 – 45
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
Sample Location
GC-36
Little
Puget
Island
WASHINGTON
Island
N
Mile 42
CR-BC-26
Mile 43
Columbia
River
Mile 44
CR-BC-27
30
OREGON

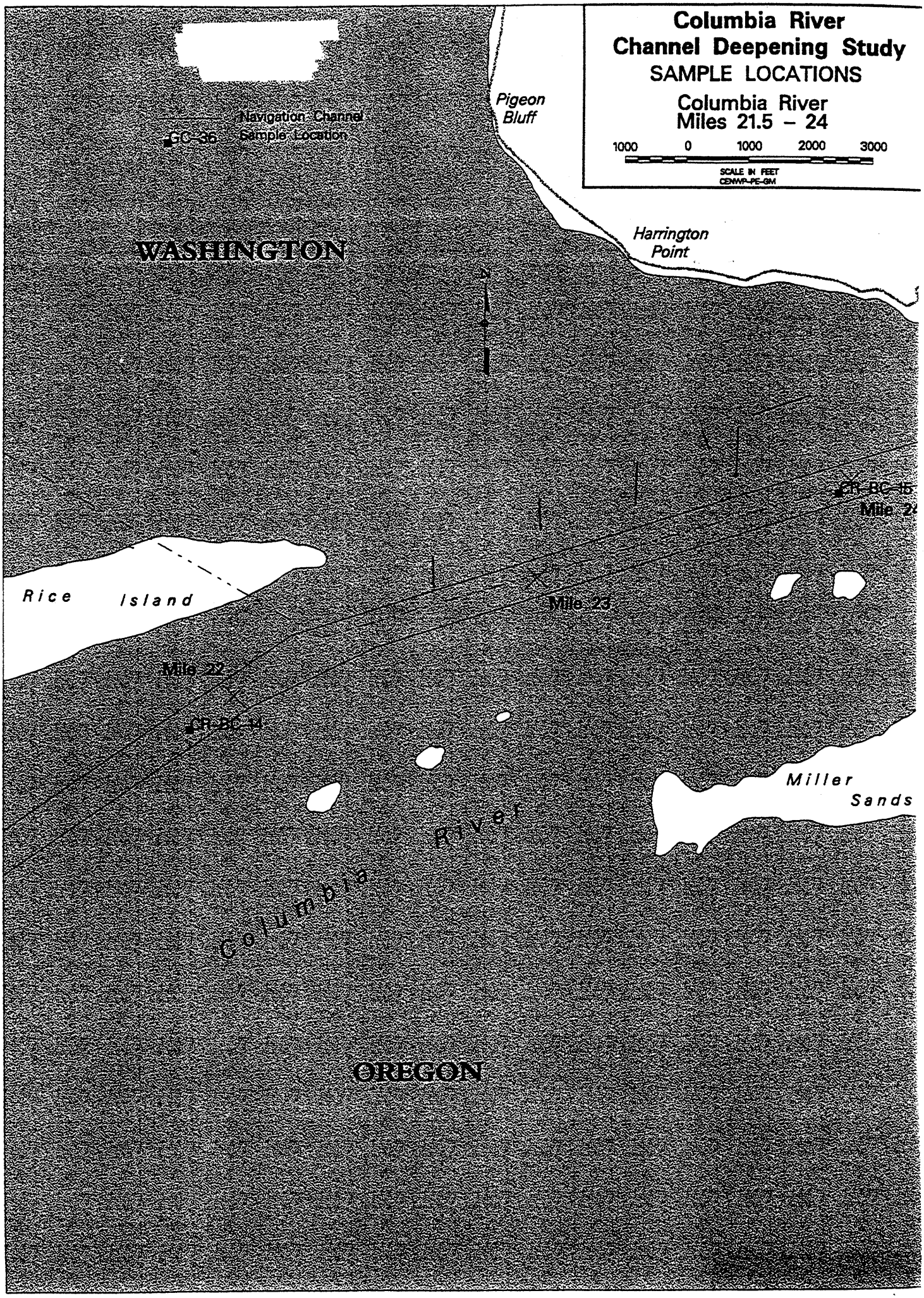

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 37.5 - 41.5
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Tenasilahe
Island
Columbia River
CR-BC-23
Mile 38
Cathlamet Channel
Ryan
Is.
Bradwood
Mile 39
CR-BC-24
N
WASHINGTON
Puget
Mile 40
Island
OREGON
CR-BC-25
Mile 41
30
Navigation Channel
GC-36
Sample Location
Wauna

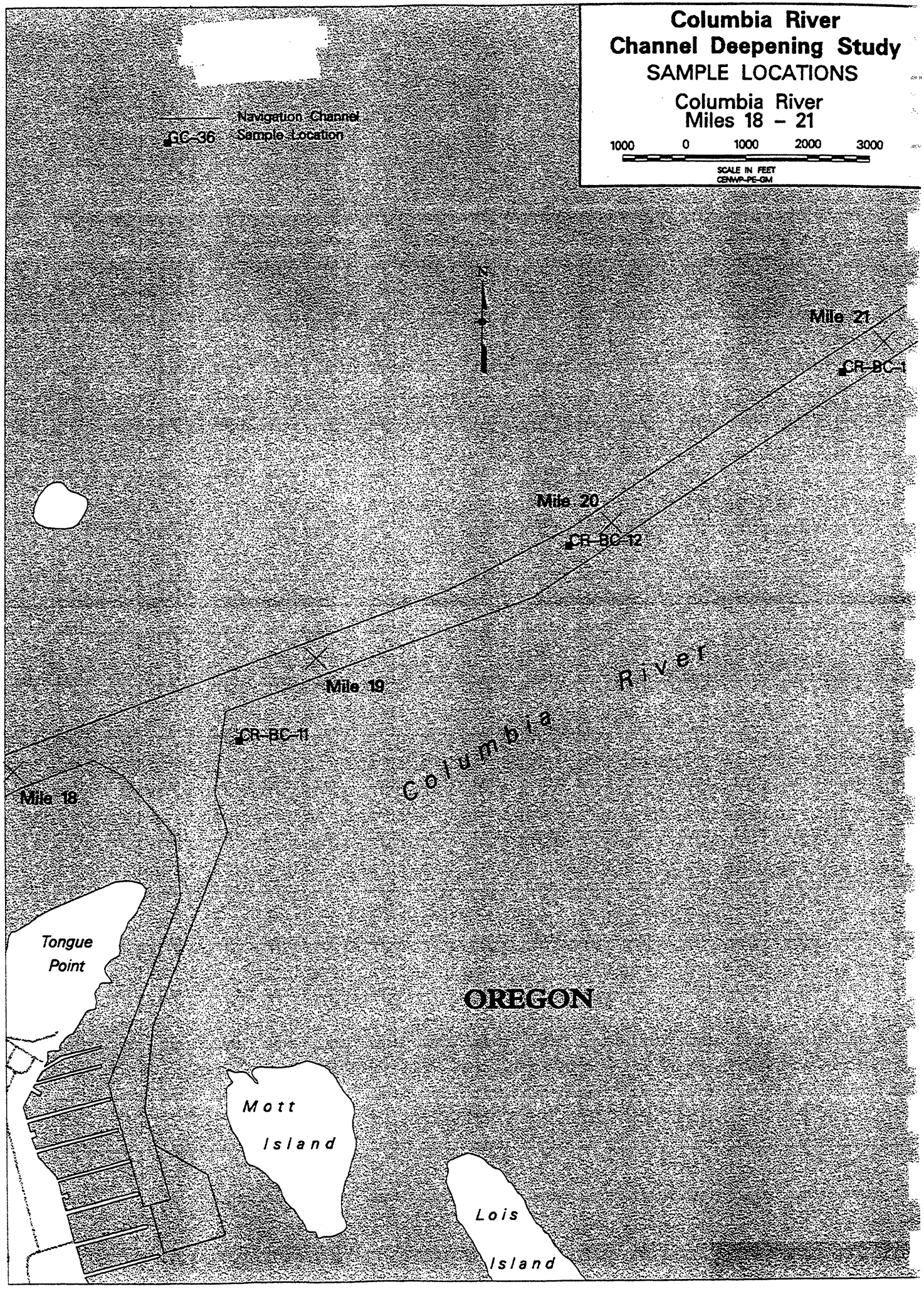

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 33 – 37.5
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
N
Skamokawa
4
Mile 33
GC-21
Mile 34
Mile 35
GC-22
Mile 36
Mile 37
Ryan
Is..
WASHINGTON
Welch
Island
OREGON
Tenasilahe
Island
Hunting
Islands
Wauna
Navigation Channel
GC-36
Sample Location

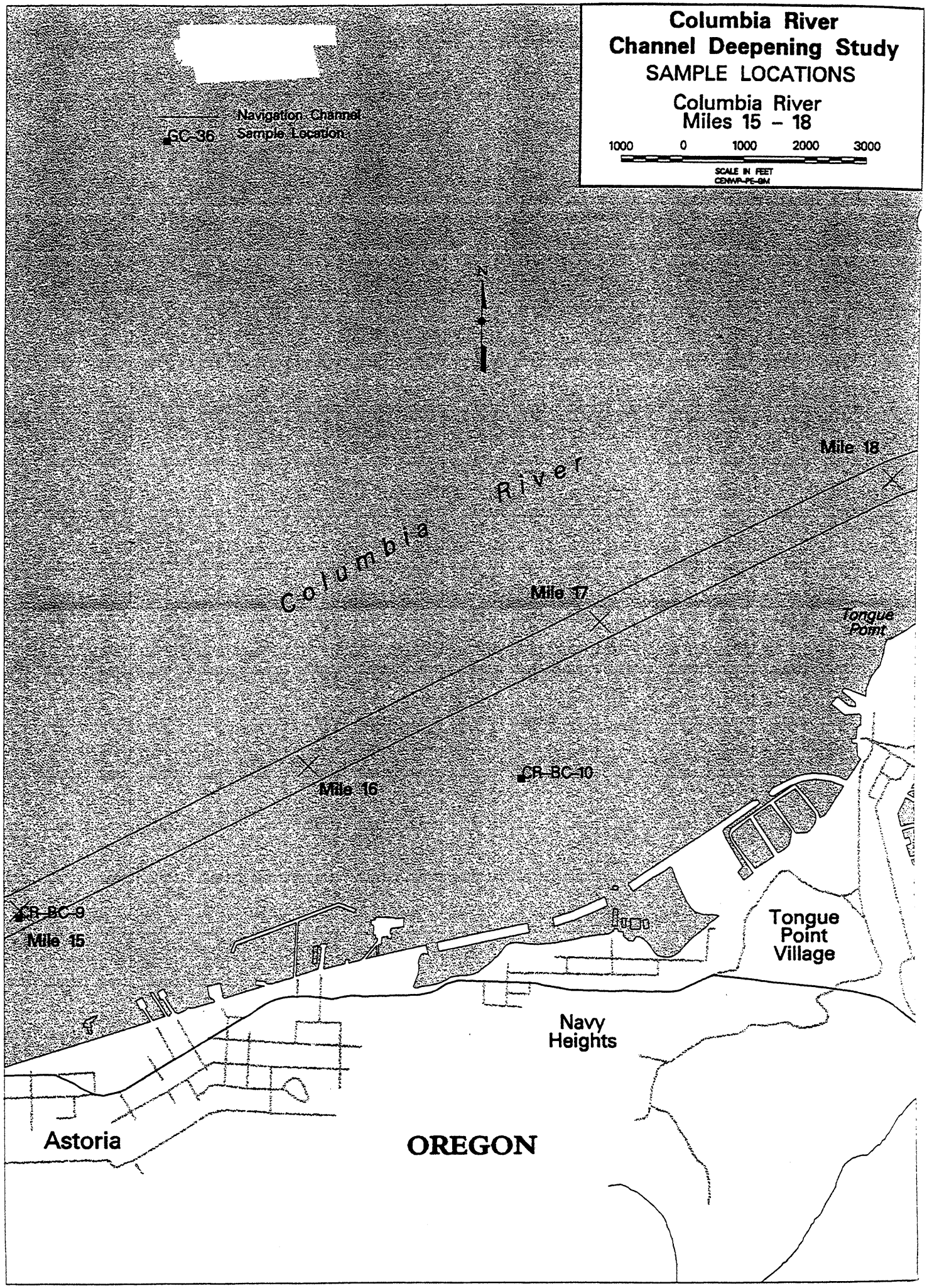

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 30 – 32.5
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36
Sample Location
WASHINGTON
N
Mile 32
GC-BC-20
Three Tree Point
Mile 31
Mile 30
GC-BC-19
OREGON
Grassy Island
Welch
Quinns Island
Island
Tronson Is.

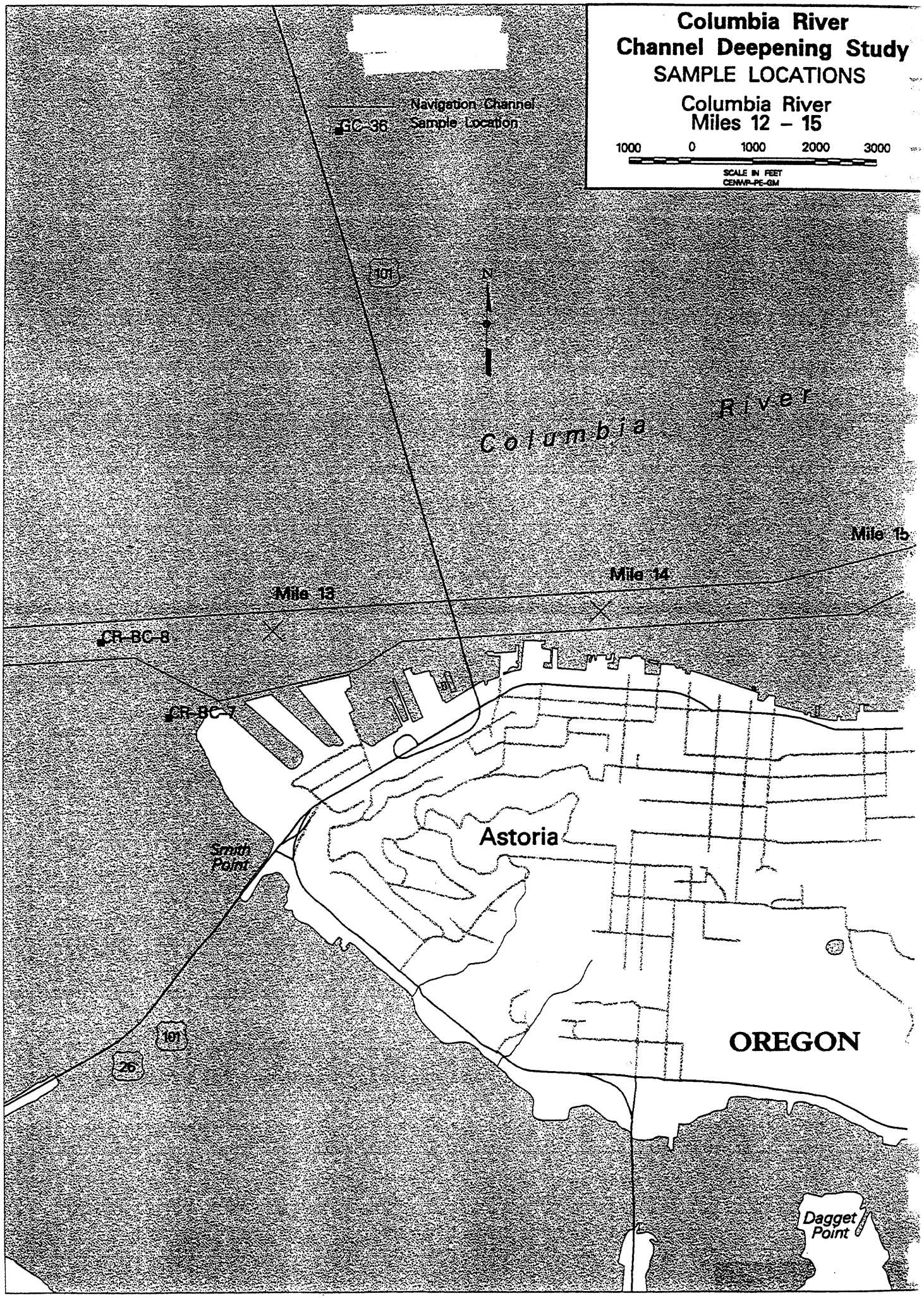

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 27 - 30
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36 Sample Location
N
WASHINGTON
OREGON
Mile 27
Mile 28
Mile 29
Jim Crow Sands
Grassy Island
Quinns Island
Aldrich Point

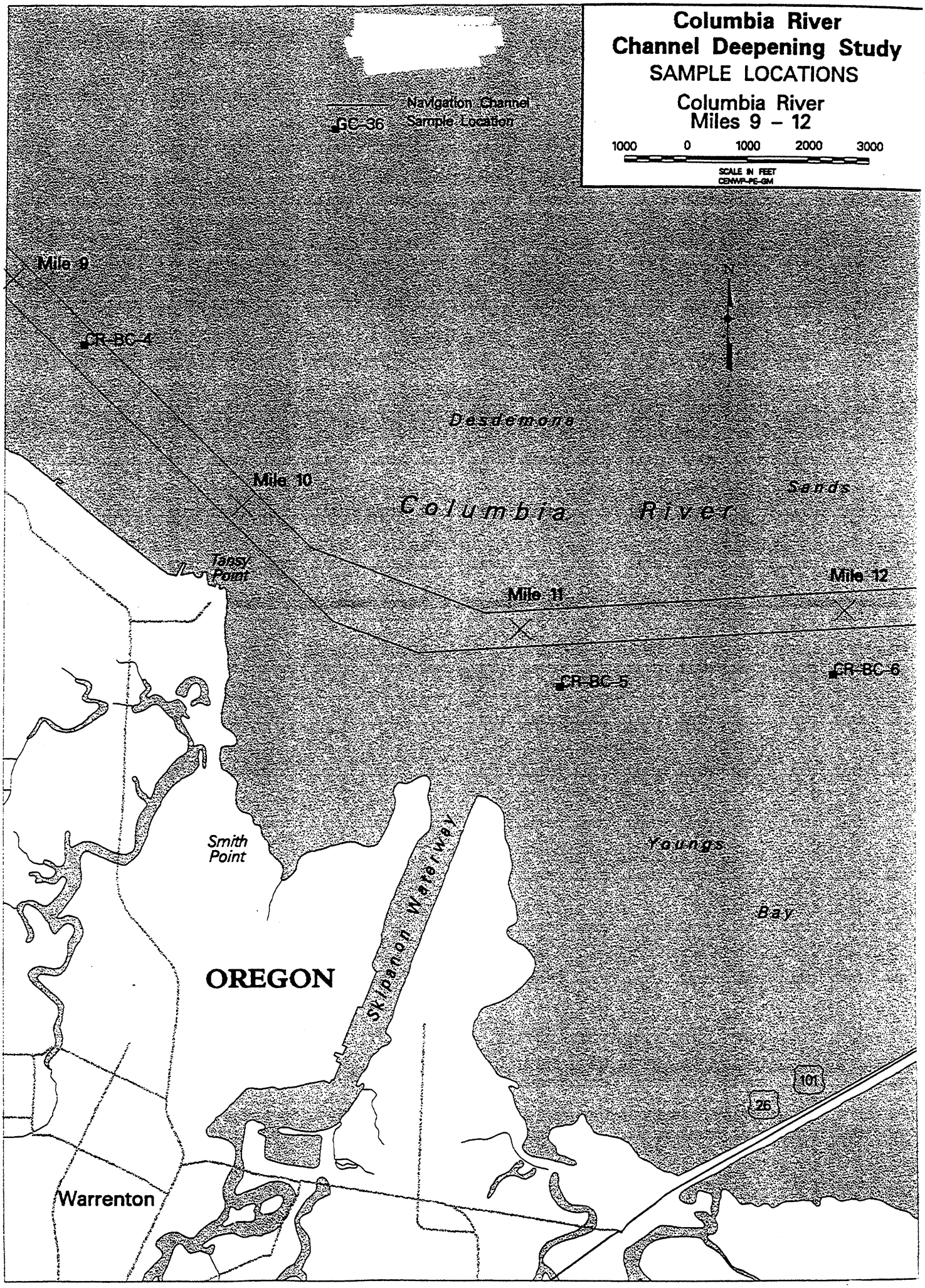

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 24.5 – 27
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36 Sample Location
WASHINGTON
N
Elliot Point
Mile 25
Columbia River
Miller Sands
OREGON
Snag Is.

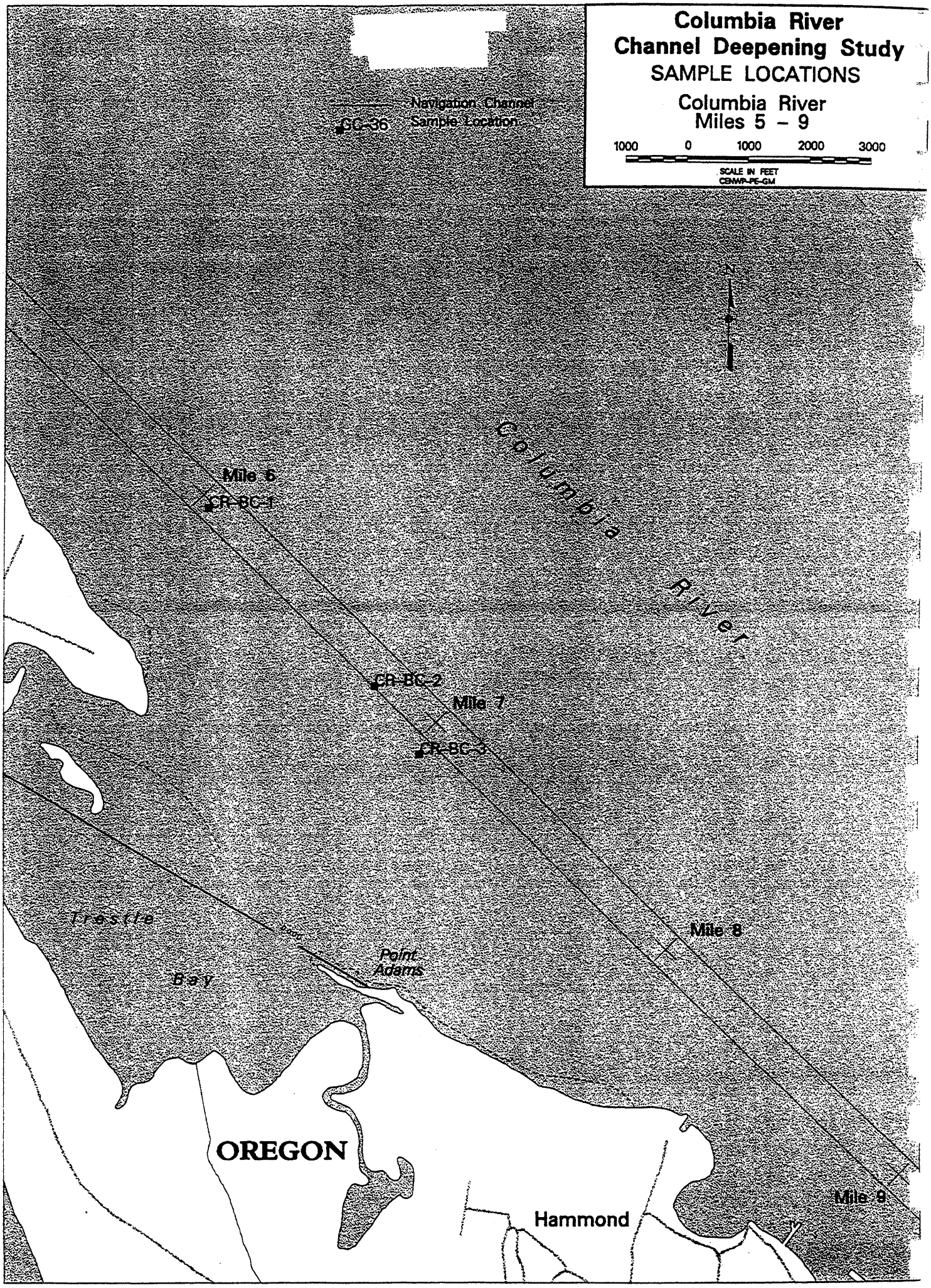

Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 21.5 – 24
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36 Sample Location
Pigeon Bluff
Harrington Point
WASHINGTON
N
CR-BC-15
Mile 24
Rice Island
Mile 23
Mile 22
CR-BC-14
Miller Sands
Columbia River
OREGON


Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 18 - 21
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36
Sample Location
N
Mile 21
CR-BC-1
Mile 20
CR-BC-12
Mile 19
CR-BC-11
Mile 18
Columbia River
Tongue Point
OREGON
Mott Island
Lois Island


Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 15 - 18
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36 Sample Location
N
Columbia River
Mile 18
Mile 17
Mile 16
Mile 15
Tongue Point
CR-BC-10
CR-BC-9
Tongue Point Village
Navy Heights
Astoria
OREGON


Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 12 – 15
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
Sample Location
GC-36
101
N
Columbia River
Mile 15
Mile 14
Mile 13
CR-BC-8
CR-BC-7
Astoria
Smith Point
101
26
OREGON
Dagget Point


Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 9 – 12
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
GC-36 Sample Location
N
Mile 9
CR-BC-4
Desdemona
Sands
Mile 10
Columbia River
Tansy Point
Mile 11
Mile 12
CR-BC-5
CR-BC-6
Smith Point
Youngs
Bay
Skipanon Waterway
OREGON
101
26
Warrenton


Columbia River
Channel Deepening Study
SAMPLE LOCATIONS
Columbia River
Miles 5 - 9
1000 0 1000 2000 3000
SCALE IN FEET
CENWP-PE-GM
Navigation Channel
CC-36 Sample Location
N
Columbia River
Mile 6
CR-BC-1
CR-BC-2
Mile 7
CR-BC-3
Mile 8
Mile 9
Trestle Bay
Point Adams
OREGON
Hammond