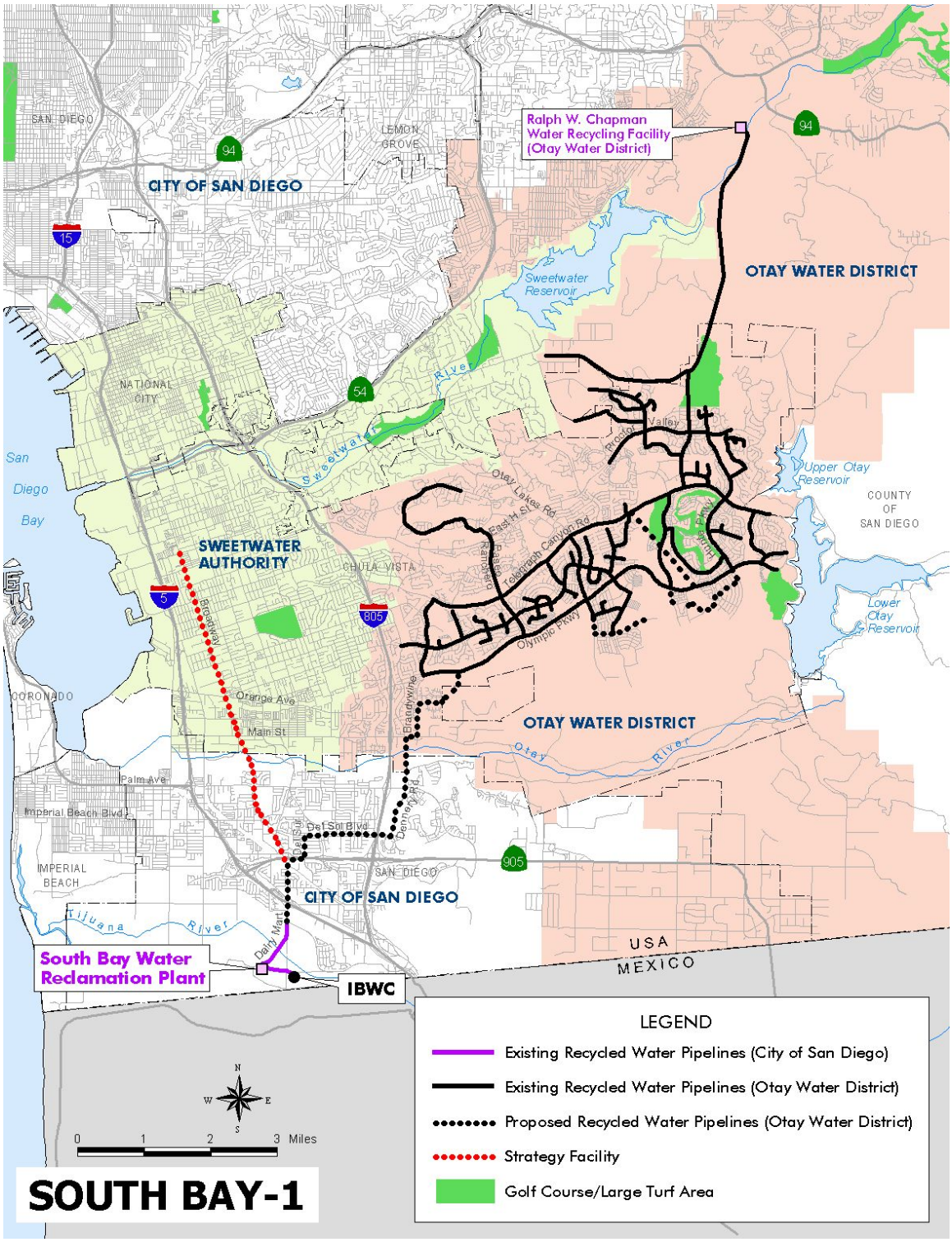
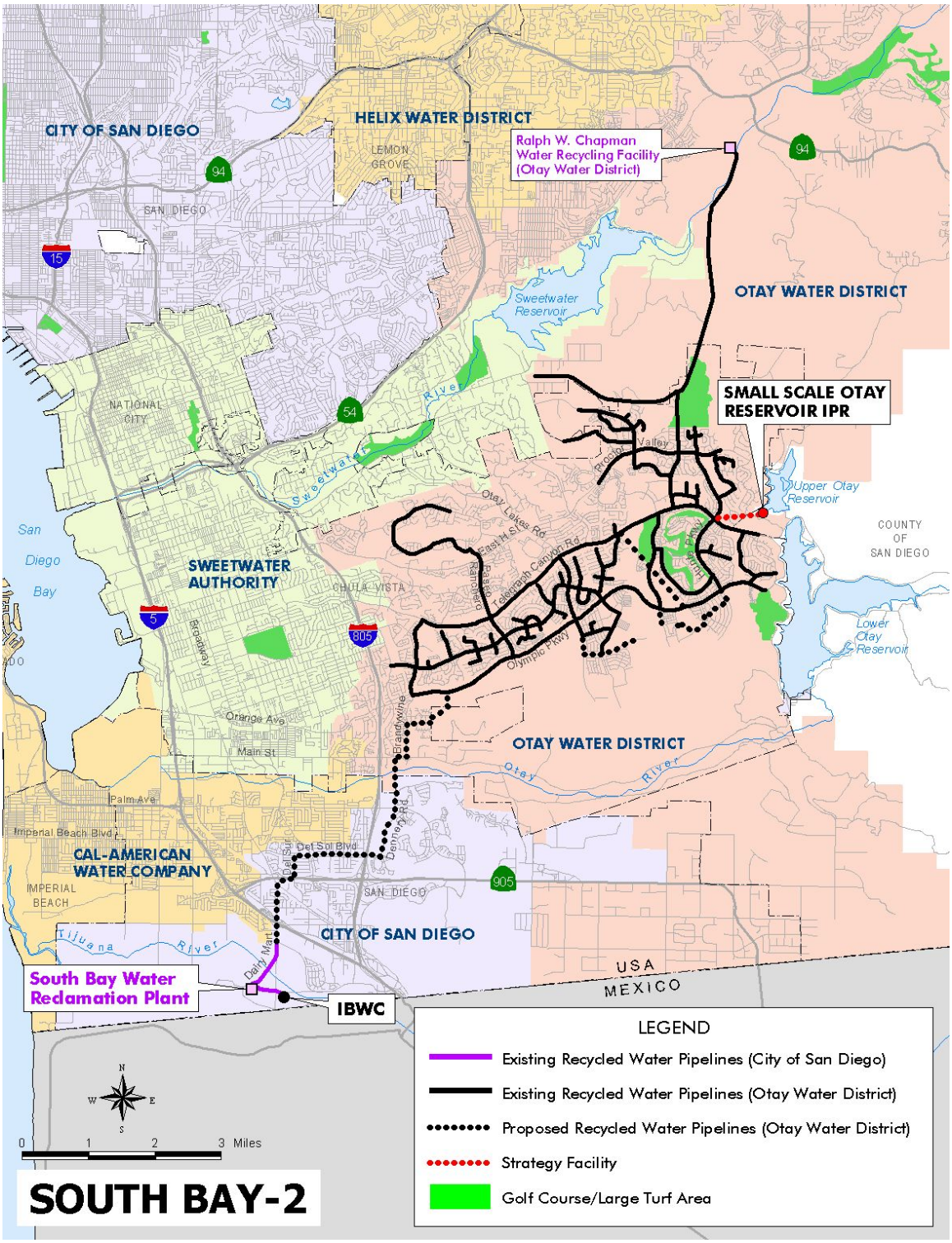
South Bay-1 (SB-1)

Type of use	Non-potable
System	Dual piping system for non-potable customers and wholesale distribution mains.
Area served	Area adjacent to South Bay facility, portions of the Otay Water District service area (Eastlake, Telegraph Canyon, etc.) and portions of the Sweetwater Authority service area in western Chula Vista and National City.
Type of Customer	Irrigation, commercial, industrial
Study options used	Expand the current distribution system
Amount of recycled water used	Of available 13.5 MGD, 11.6 MGD can be used
Total available plant utilization	86%
Total Project Cost	$1,000,000
Cost increase estimated on monthly bill	$0.00. (see cost analysis below)
Cost analysis	Assumes no additional expenditures on City infrastructure system. Expansion costs would be paid by other water agencies to serve their customers, thus resulting in lowest capital investment by the City and lowest unit cost of South Bay strategies. NOTE: These are estimated costs and do not include grants or other incentives that may be available.
Benefit	Less dependence on imported water, locally controlled drought-proof supply, offsets discharge of wastewater into the ocean. Results in lowest capital investment and lowest unit cost of all South Bay strategies. Note: This strategy would require a large user in the Sweetwater Authority's service area.


Ralph W. Chapman
Water Recycling Facility
(Otay Water District)
SAN DIEGO
LEMON GROVE
CITY OF SAN DIEGO
OTAY WATER DISTRICT
Sweetwater Reservoir
NATIONAL CITY
Sweetwater River
San Diego Bay
SWEETWATER AUTHORITY
CHULA VISTA
Upper Otay Reservoir
COUNTY OF SAN DIEGO
Lower Otay Reservoir
CORONADO
Orange Ave
Main St
Palm Ave
Imperial Beach Blvd
Del Sol Blvd
IMPERIAL BEACH
Tijuana River
South Bay Water Reclamation Plant
IBWC
USA
MEXICO
LEGEND
Existing Recycled Water Pipelines (City of San Diego)
Existing Recycled Water Pipelines (Otay Water District)
Proposed Recycled Water Pipelines (Otay Water District)
Strategy Facility
Golf Course/Large Turf Area
0 1 2 3 Miles
SOUTH BAY-1

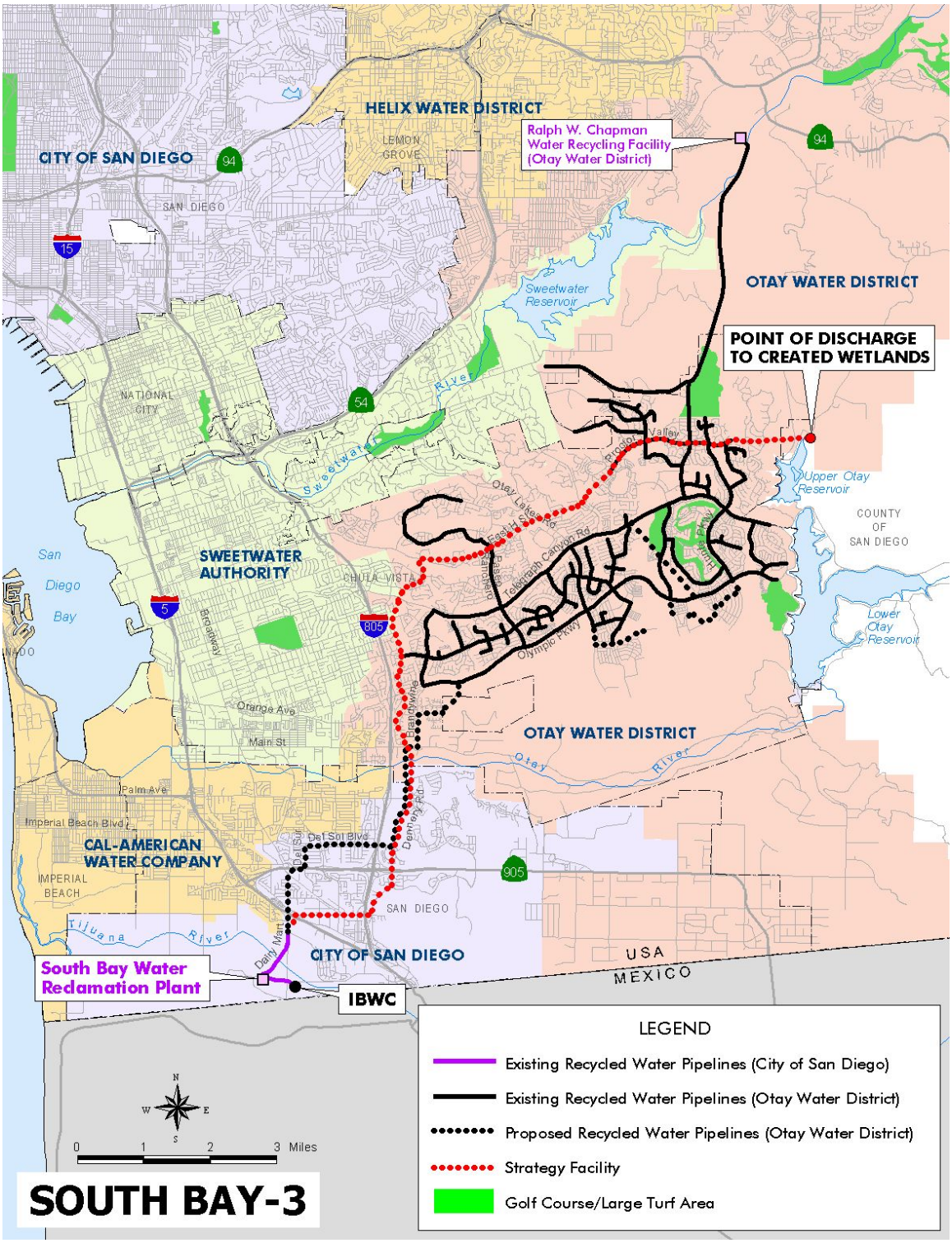
South Bay-2 (SB-2)

Type of use	Non-potable and indirect potable reuse
System	Dual piping system for non-potable customers and wholesale distribution mains. Construct a 2 MGD advanced water treatment facility at Upper Otay Reservoir with wetlands. Blended recycled water flows to Lower Otay Reservoir and is treated at the Otay WTP prior to distribution to drinking water customers.
Area served	Area adjacent to South Bay facility, portions of the Otay Water District service area (Eastlake, Telegraph Canyon, etc.), the Otay WTP service area and the cities of Imperial Beach and Coronado.
Type of Customer	Irrigation, commercial, industrial and City potable water customers receiving water from the Otay WTP.
Study options used	Expand the current distribution system, create wetlands, add water to raw water reservoirs after additional treatment.
Amount of recycled water used	Of available 12.9 MGD, 8 MGD can be used
Total available plant utilization	62%
Total Project Cost	$21,600,000
Cost increase estimated on monthly bill	$0.23
Cost analysis	Assumes City will utilize existing distribution system and construct a pipeline segment to reach Upper Otay Reservoir, and build a small (2 MGD) advanced water treatment plant. NOTE: These are estimated costs and do not include grants or other incentives that may be available.
Benefit	Less dependence on imported water, locally controlled drought-proof supply, offsets discharge of wastewater into the ocean. It includes a mix of non-potable uses and a small-scale indirect potable reuse project.


CITY OF SAN DIEGO
HELIX WATER DISTRICT
LEMON GROVE
SAN DIEGO
Ralph W. Chapman Water Recycling Facility (Otay Water District)
OTAY WATER DISTRICT
Sweetwater Reservoir
SMALL SCALE OTAY RESERVOIR IPR
NATIONAL CITY
Sweetwater River
Upper Otay Reservoir
COUNTY OF SAN DIEGO
San Diego Bay
SWEETWATER AUTHORITY
CHULA VISTA
Otay Lakes Rd
East H St
Telegraph Canyon Rd
Olympic Pkwy
Lower Otay Reservoir
Broadway
Orange Ave
Main St
Palm Ave
Imperial Beach Blvd
Del Sol Blvd
Otay River
CAL-AMERICAN WATER COMPANY
IMPERIAL BEACH
Tijuana River
South Bay Water Reclamation Plant
IBWC
USA
MEXICO
LEGEND
Existing Recycled Water Pipelines (City of San Diego)
Existing Recycled Water Pipelines (Otay Water District)
Proposed Recycled Water Pipelines (Otay Water District)
Strategy Facility
Golf Course/Large Turf Area
0 1 2 3 Miles
SOUTH BAY-2

South Bay-3 (SB-3)

Type of use	Non-potable and indirect potable reuse
System	Dual piping system for non-potable customers and wholesale distribution mains. Construct a 5.5 MGD advanced water treatment facility near the SBWRP and a 16 mile pipeline to a created wetlands above Upper Otay Reservoir. Advanced treated water blends with local runoff at Upper Otay Reservoir, flows to Lower Otay Reservoir and, after further natural treatment, is treated at Otay WTP prior to distribution to drinking water customers.
Area served	Area adjacent to South Bay facility, portions of the Otay Water District service area (Eastlake, Telegraph Canyon, etc.), the Otay WTP service area and the cities of Imperial Beach and Coronado.
Type of Customer	Irrigation, commercial, industrial and City potable water customers receiving water from the Otay WTP.
Study options used	Expand the current distribution system, create wetlands, add water to raw water reservoirs after additional treatment.
Amount of recycled water used	Of available 11.8 MGD, 11.3 MGD can be used
Total available plant utilization	96%
Total Project Cost	$96,100,000
Cost increase estimated on monthly bill	$0.89
Cost analysis	Assumes City will construct 16 mile pipeline to Upper Otay Reservoir and construct larger (5.5 MGD) advanced water treatment facility. These projects create higher initial impact on customer bill while utilizing more of the reclamation plant's capacity. NOTE: These are estimated costs and do not include grants or other incentives that may be available.
Benefit	Maximizes the available South Bay water supply through indirect potable reuse, less dependence on imported water, locally controlled drought-proof supply, offsets discharge of wastewater into the ocean. Provides low overall unit cost and greatest geographic area of utilization.


HELIX WATER DISTRICT
LEMON GROVE
Ralph W. Chapman Water Recycling Facility (Otay Water District)
CITY OF SAN DIEGO
SAN DIEGO
OTAY WATER DISTRICT
Sweetwater Reservoir
POINT OF DISCHARGE TO CREATED WETLANDS
NATIONAL CITY
Sweetwater River
Upper Otay Reservoir
COUNTY OF SAN DIEGO
San Diego Bay
SWEETWATER AUTHORITY
CHULA VISTA
Lower Otay Reservoir
Orange Ave
Main St
OTAY WATER DISTRICT
Otay River
Palm Ave
Imperial Beach Blvd
CAL-AMERICAN WATER COMPANY
IMPERIAL BEACH
Del Sol Blvd
SAN DIEGO
Tijuana River
South Bay Water Reclamation Plant
CITY OF SAN DIEGO
USA
MEXICO
IBWC
LEGEND
Existing Recycled Water Pipelines (City of San Diego)
Existing Recycled Water Pipelines (Otay Water District)
Proposed Recycled Water Pipelines (Otay Water District)
Strategy Facility
Golf Course/Large Turf Area
0 1 2 3 Miles
SOUTH BAY-3