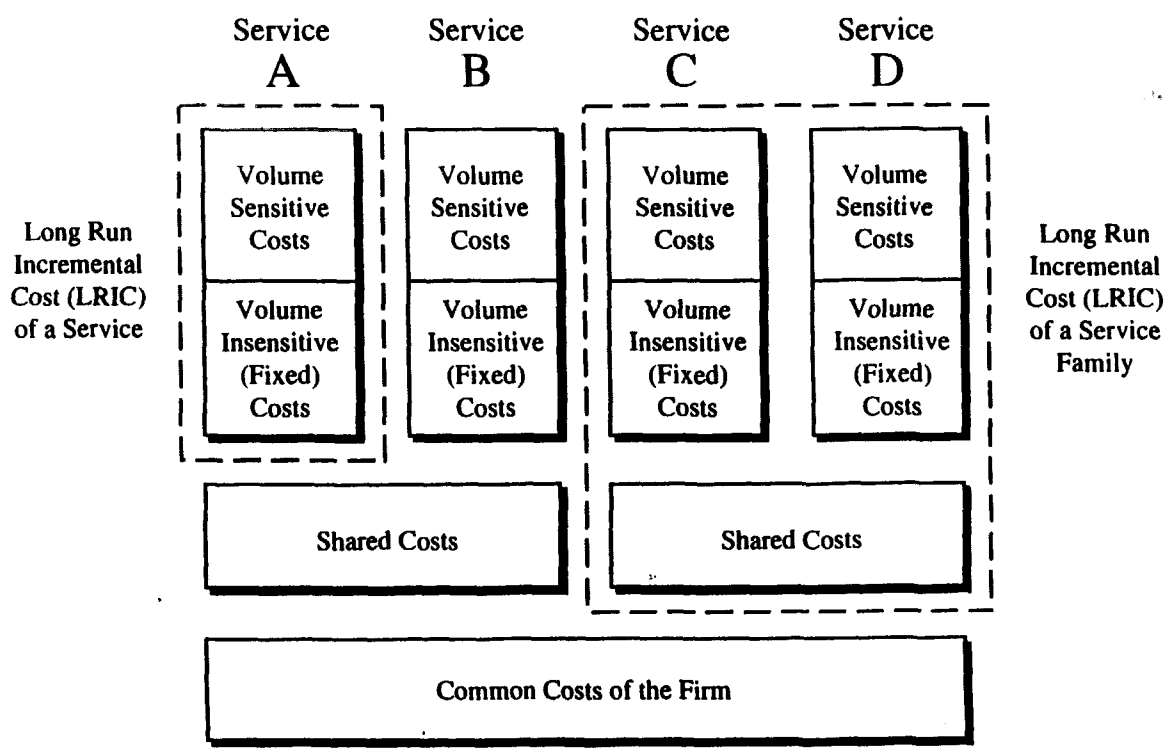
3. Reflect Realistic Cost Drivers

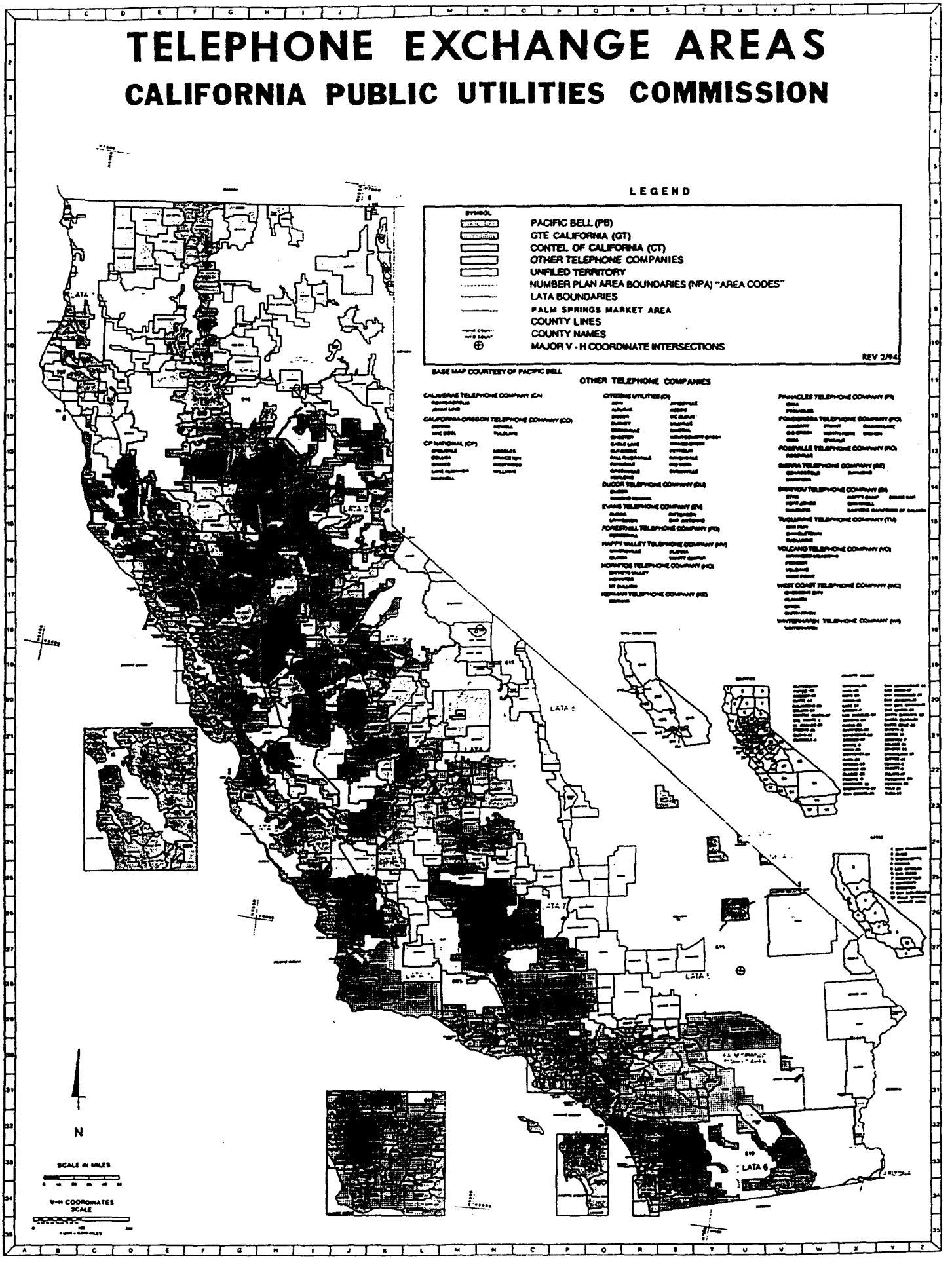
- Recognize terrain differences
- Assign Customers to serving wire center
- Accommodate specified technology
- Reflect actual distances and densities

	Forward Looking								
	Object Specific								
	Vol. Sens.	Vol. Insens.	Shared #1	Shared #2	Shared #3	Common Cost	Total Direct	Historical Cost[1]	Total Cost
A	16	5	X		X	X	21	X	
B	80	150	X			X	230	X	
C	50	240		X		X	290	X	
D	85	45		X	X	X	130	X	
Totals	**231**	**440**	**40**	**5**	**20**	**10**	**671**	**20**	**766**

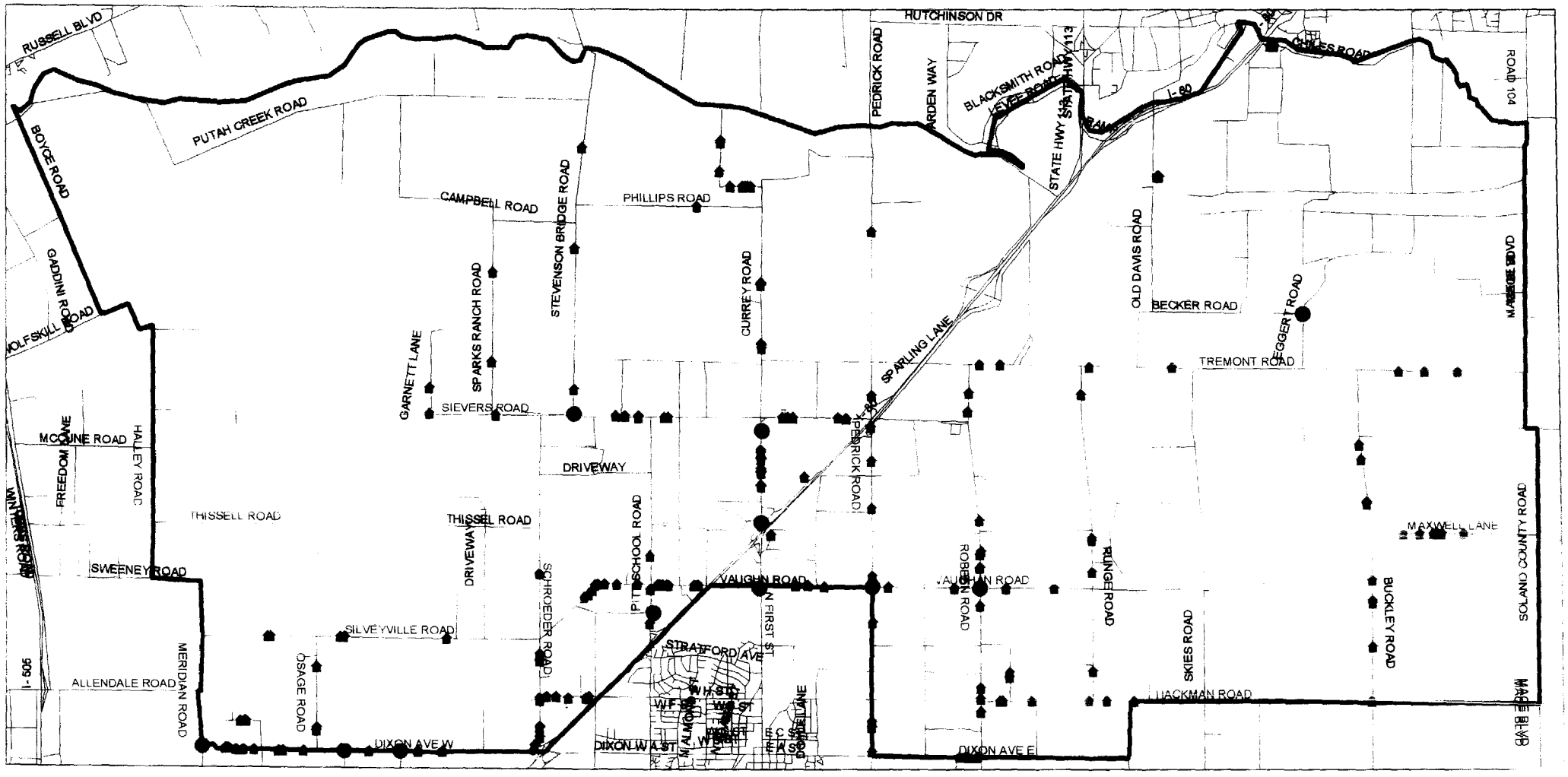


TELEPHONE EXCHANGE AREAS

CALIFORNIA PUBLIC UTILITIES COMMISSION



BLOCK GROUP 60952533.982
DIXON AREA



Scale in Miles

1

HOUSEHOLDS

SAI'S

BG 2533.982

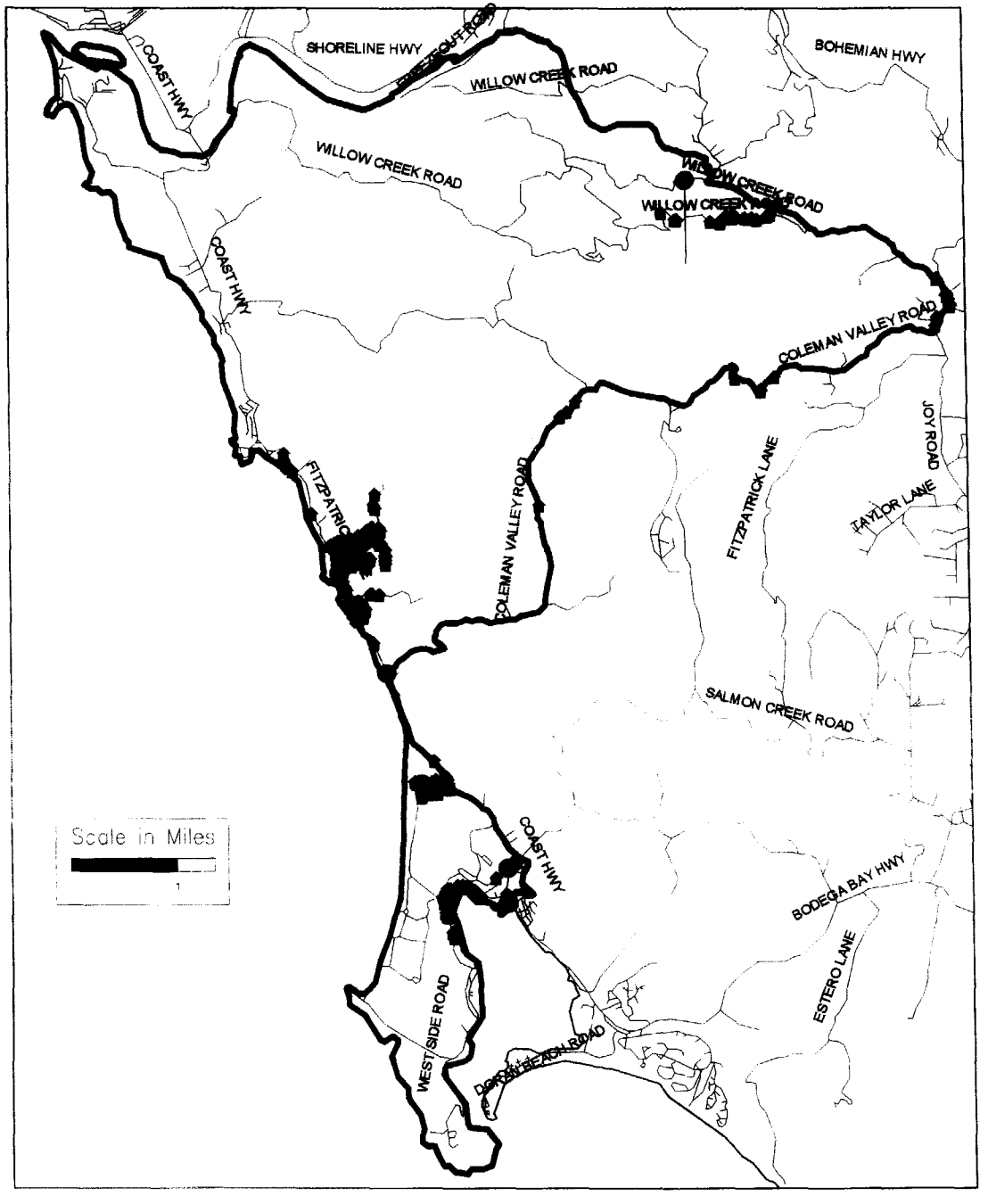
ROADS

DIXN6 012496D

PROPRIETARY INFORMATION: NOT FOR USE OR DISCLOSURE
OUTSIDE PACIFIC BELL EXCEPT UNDER WRITTEN AGREEMENT

PREPARED BY PACIFIC BELL
GEOGRAPHIC INTELLIGENCE SERVICES
BUS MKT GRP

BLOCK GROUP 60971543.004
BODEGA BAY AREA

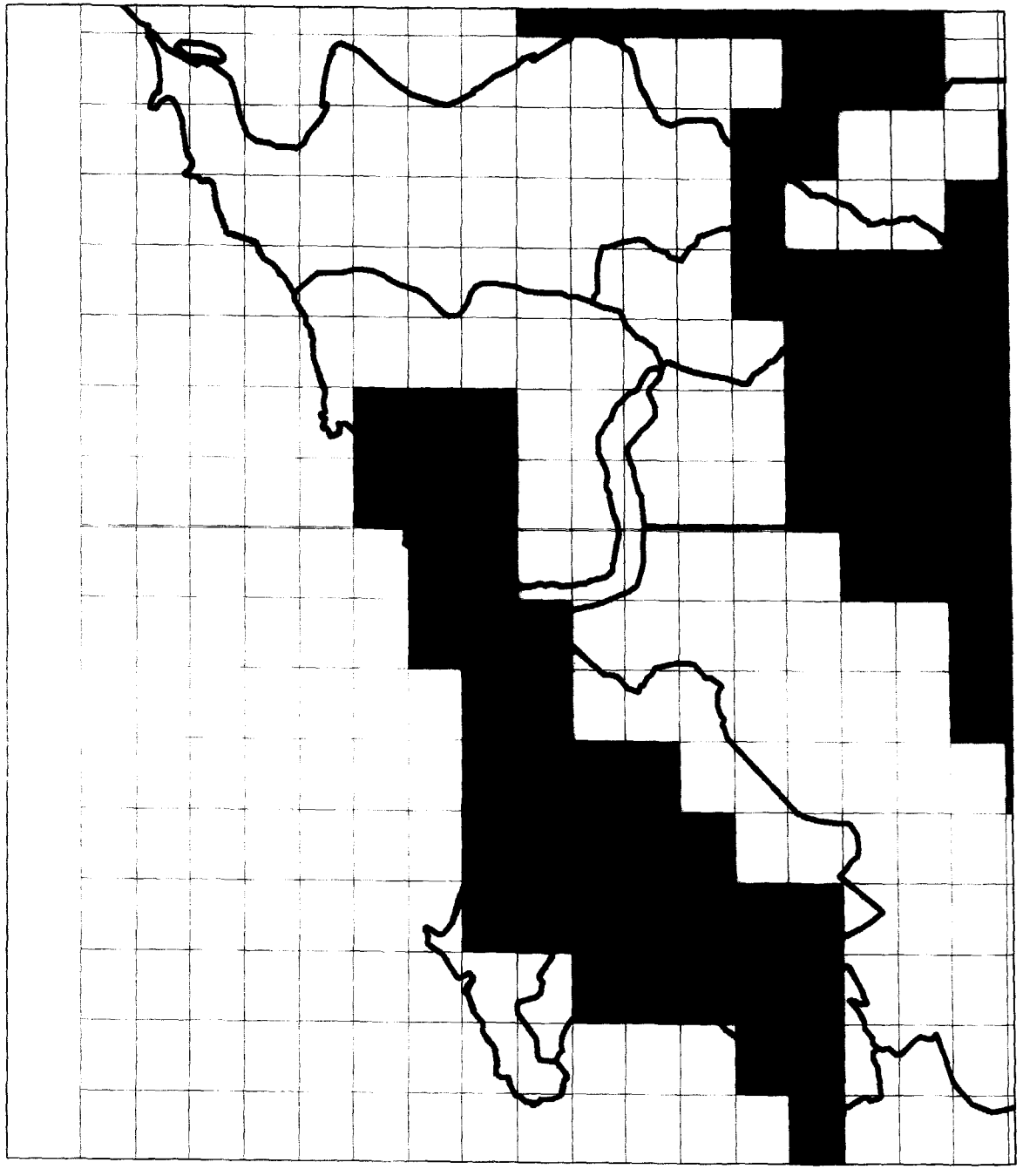


HOUSEHOLDS
SAI'S
BG 1543.004
ROADS

BDBA7 012496D

PREPARED BY K. DOMBROWSKI (510)823-5025
GEOGRAPHIC INTELLIGENCE SERVICES - BUS MKT GRP

PROPRIETARY INFORMATION: NOT FOR USE OR DISCLOSURE
OUTSIDE PACIFIC BELL EXCEPT UNDER WRITTEN AGREEMENT



BODEGA BAY AREA RES/BUS DENSITY NINE GRID (AVERAGE)

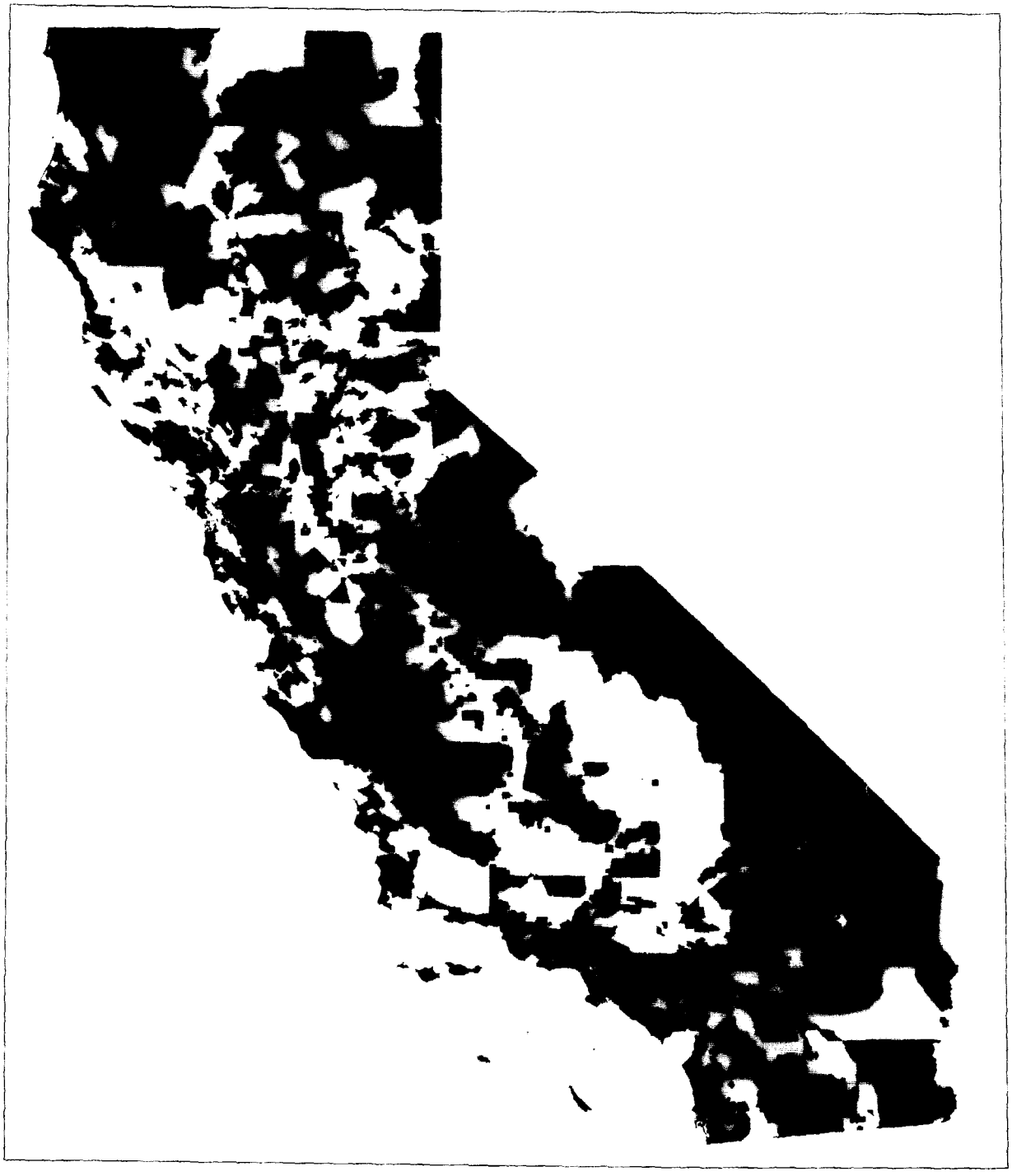
- 0 - 10
- 11 - 50
- 51 - 150
- 151 - 500
- 501 - 2000
- 2001 - 5000
- OVER 5000
- BG 1543.004
- WIRE CENTER BOUNDARY

Scale in Miles

BDBA3 012496D

PREPARED BY PACIFIC BELL
GEOGRAPHIC INTELLIGENCE SERVICES
BUS MKT GRP

PROPRIETARY INFORMATION: NOT FOR USE OR DISCLOSURE
OUTSIDE PACIFIC BELL EXCEPT UNDER WRITTEN AGREEMENT



UNIVERSAL SUBSIDY AMOUNTS BY CENSUS BLOCK GROUP COST PROXY MODEL CALIFORNIA

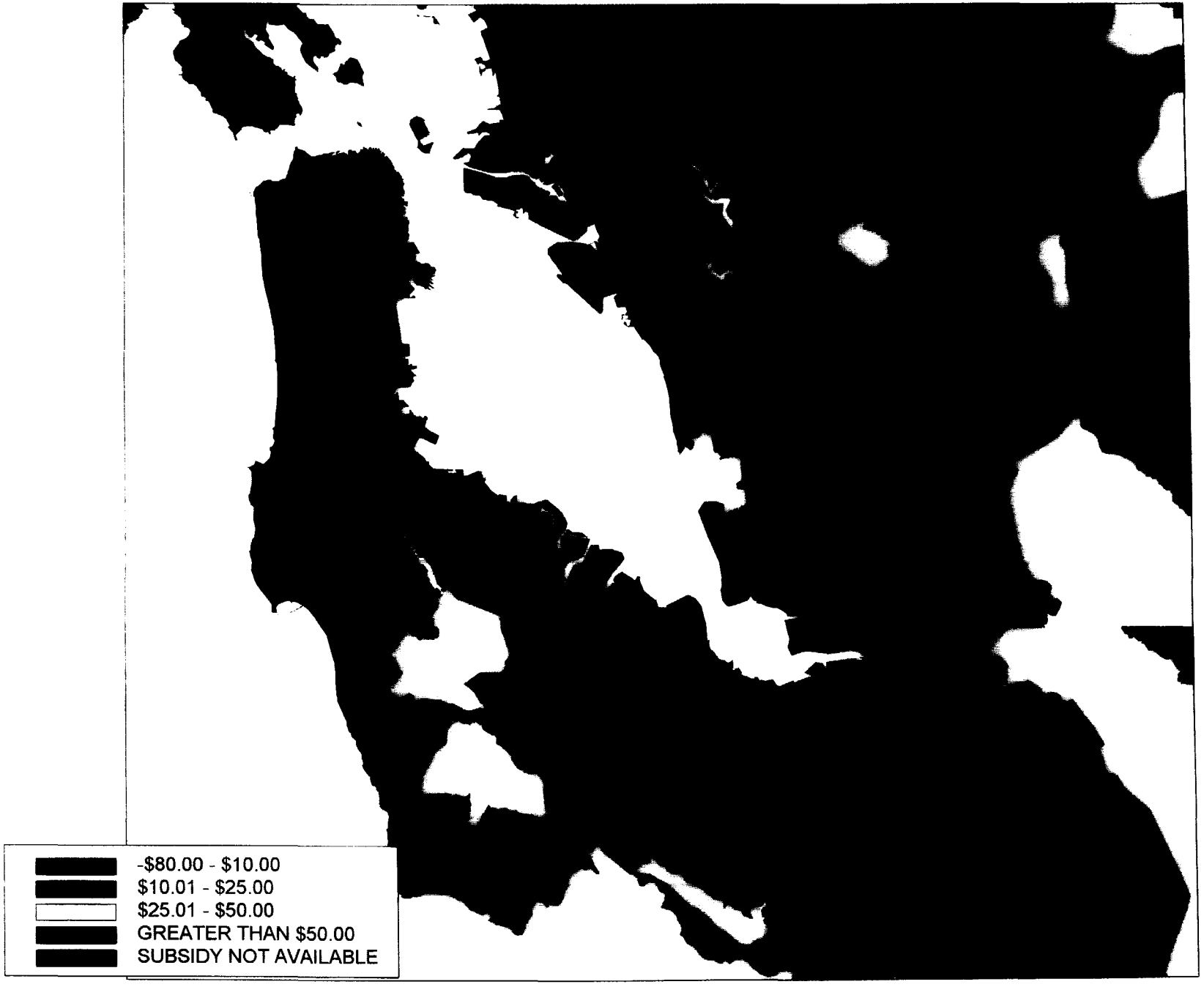
- -$80.00 - $10.00
- $10.01 - $25.00
- $25.01 - $50.00
- GREATER THAN $50.00
- SUBSIDY NOT AVAILABLE

PROPRIETARY INFORMATION: NOT FOR USE OR DISCLOSURE
OUTSIDE PACIFIC BELL EXCEPT UNDER WRITTEN AGREEMENT

PREPARED BY PACIFIC BELL
GEOGRAPHIC INTELLIGENCE SERVICES

SUB_CA 051496D

UNIVERSAL SUBSIDY AMOUNTS BY CENSUS BLOCK GROUP
COST PROXY MODEL - SAN FRANCISCO BAY AREA



PREPARED BY PACIFIC BELL
GEOGRAPHIC INTELLIGENCE SERVICES

PROPRIETARY INFORMATION: NOT FOR USE OR DISCLOSURE
OUTSIDE PACIFIC BELL EXCEPT UNDER WRITTEN AGREEMENT

SUB_BA 051496D

UNIVERSAL SUBSIDY AMOUNTS BY CENSUS BLOCK GROUP
COST PROXY MODEL - LOS ANGELES AREA

PREPARED BY PACIFIC BELL
GEOGRAPHIC INTELLIGENCE SERVICES

PROPRIETARY INFORMATION: NOT FOR USE OR DISCLOSURE
OUTSIDE PACIFIC BELL EXCEPT UNDER WRITTEN AGREEMENT

SUB_LA 051496D

THE COST PROXY MODEL©

What is it

The CPM is a database driven predictor of a least cost, forward looking local telecommunications network. It is based upon data collected from a small geographic unit which can be roled up into an geographic area, including CBG, WC, CATV, or according to other factors such as ethnicity, income, age, etc..

Distinguishing characteristic

A SAS™ based, menu driven software system making it easy to use and run what if scenarios, contrasted to Excel™ spreadsheets based models.

Other advantages

Finer input geography - grid
Delinks cash operating expenses from investments
Includes all network elements
All inputs are changeable
Accurate assignment of of CBGs
Recognizes individual provider uniqueness
Flexible
Works with both proprietary and commercial inputs

CPM Development Criteria

1. Accommodate <u>any</u> geography

2. Operate with or without proprietary data

3. Reflect realistic cost drivers

1. Accommodate <u>Any</u> Geography

- Individual premises
- Grid cells (any size)
- Census block groups
- Cities and towns
- Wire centers
- CATV areas
- Entire state
- Arbitrary polygons

2. Operate With or Without Proprietary Data

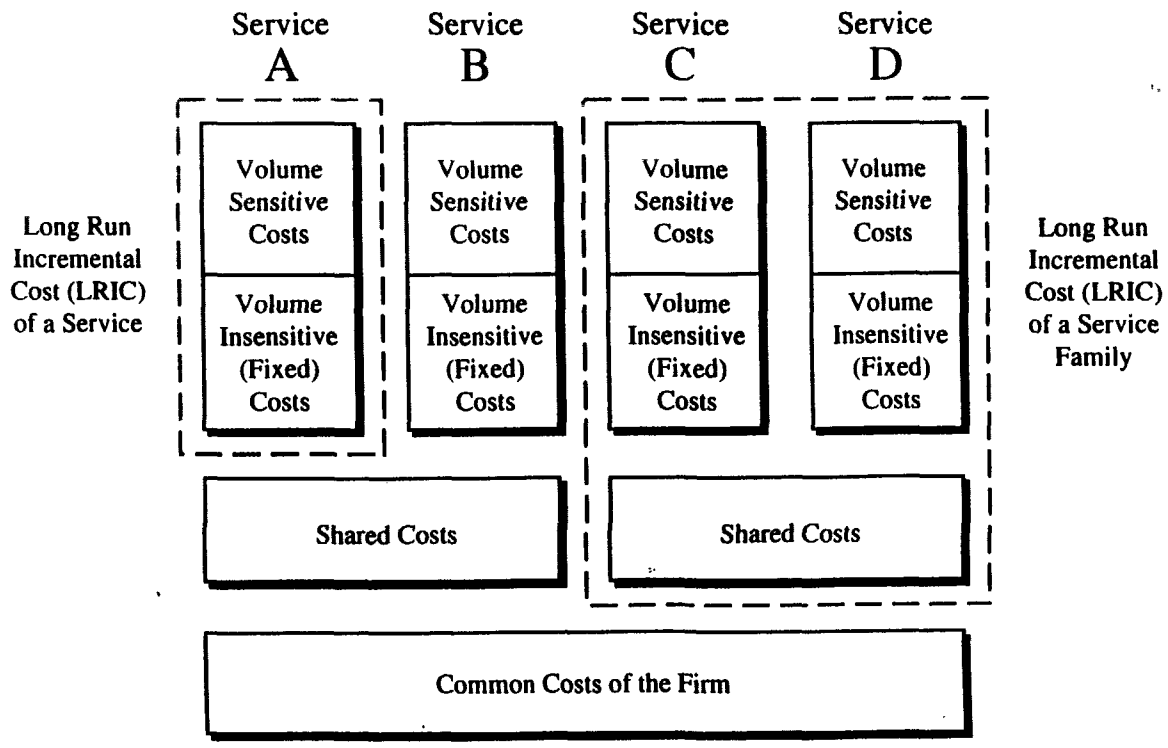
- Customer addresses
- Actual network
- Company costs
- Actual equipment
- Actual network topology

- Grid cells/other polygons
- Simulated network
- Average costs
- Assumed equipment
- Modeled network topology

3. Reflect Realistic Cost Drivers

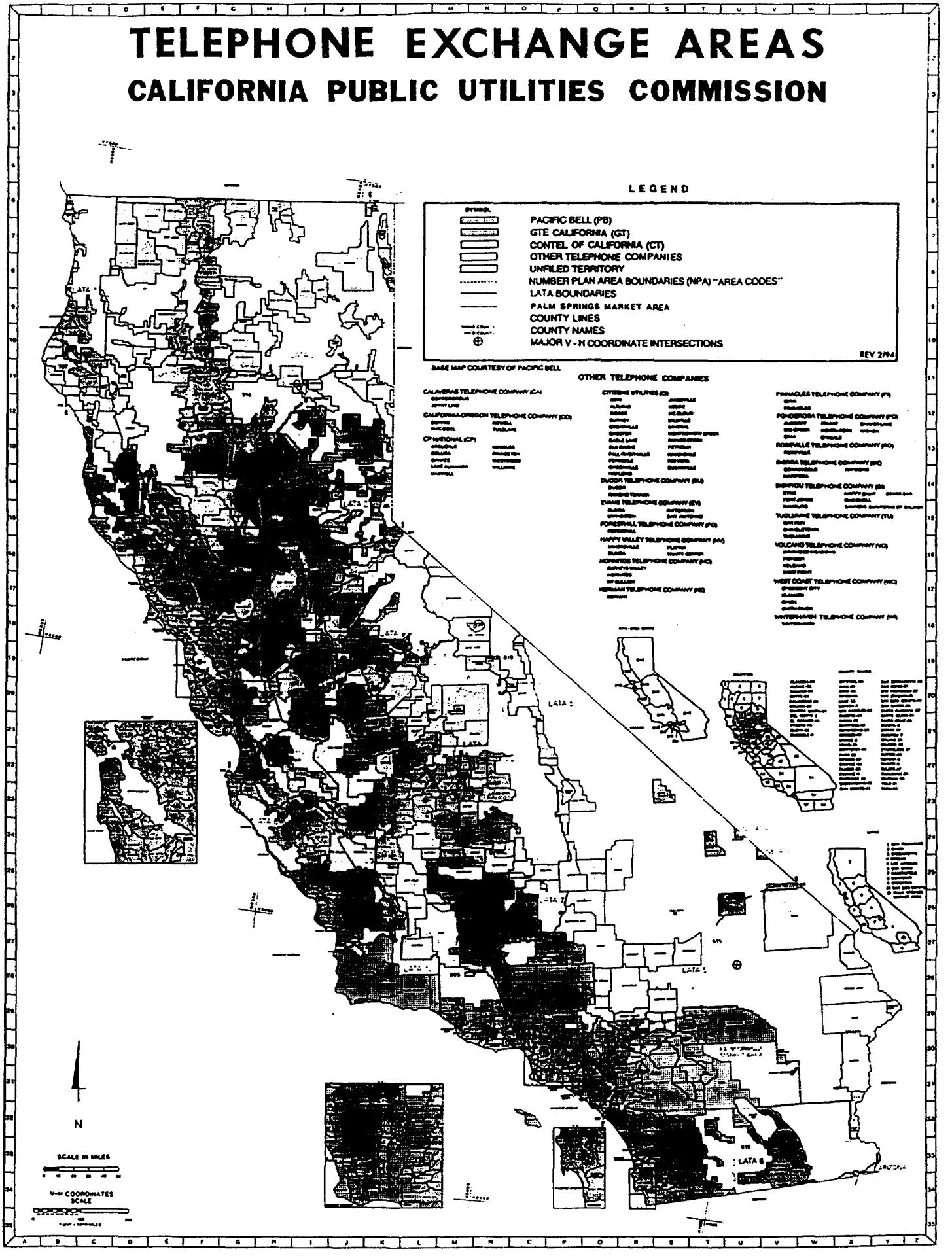
- Recognize terrain differences
- Assign Customers to serving wire center
- Accommodate specified technology
- Reflect actual distances and densities

	Forward Looking								
	Object Specific								
	Vol. Sens.	Vol. Insens.	Shared #1	Shared #2	Shared #3	Common Cost	Total Direct	Historical Cost[1]	Total Cost
A	16	5	X		X	X	21	X	
B	80	150	X			X	230	X	
C	50	240		X		X	290	X	
D	85	45		X	X	X	130	X	
Totals	**231**	**440**	**40**	**5**	**20**	**10**	**671**	**20**	**766**

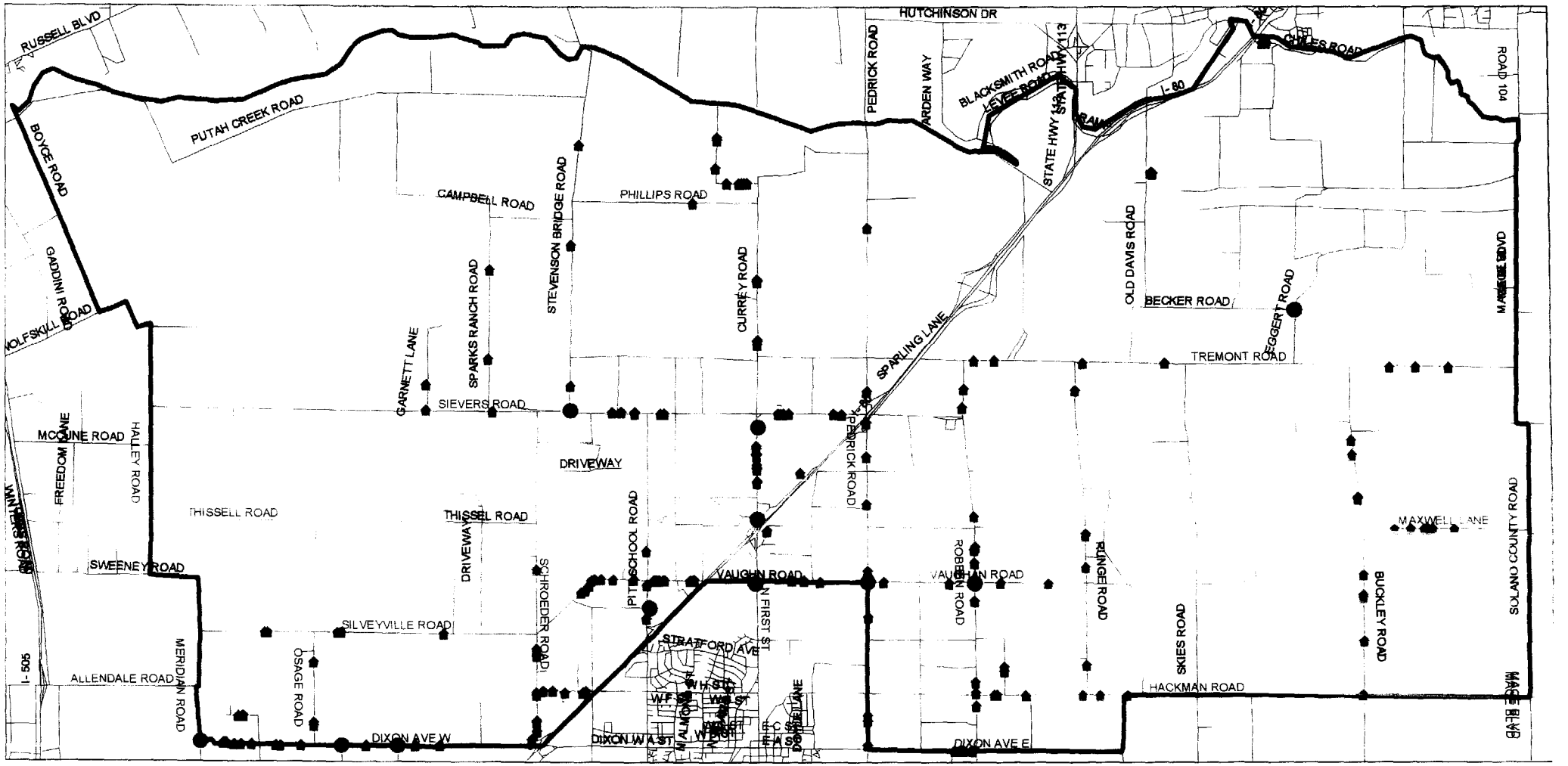


TELEPHONE EXCHANGE AREAS

CALIFORNIA PUBLIC UTILITIES COMMISSION



BLOCK GROUP 60952533.982
DIXON AREA



Scale in Miles

1

HOUSEHOLDS

SAI'S

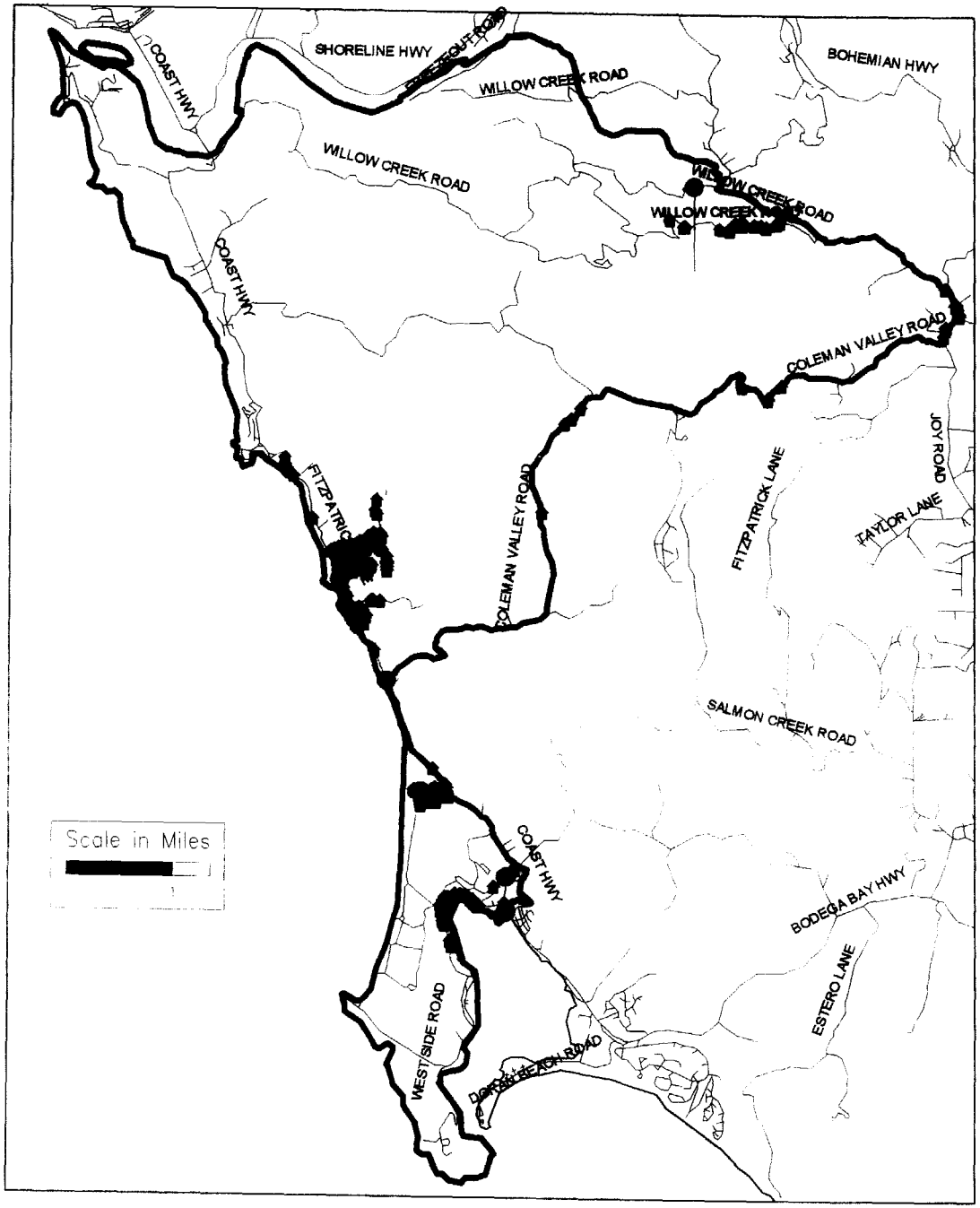
BG 2533.982

ROADS

DIXN6 012496D

PROPRIETARY INFORMATION: NOT FOR USE OR DISCLOSURE
OUTSIDE PACIFIC BELL EXCEPT UNDER WRITTEN AGREEMENT

PREPARED BY PACIFIC BELL
GEOGRAPHIC INTELLIGENCE SERVICES
BUS MKT GRP



BLOCK GROUP 60971543.004
BODEGA BAY AREA

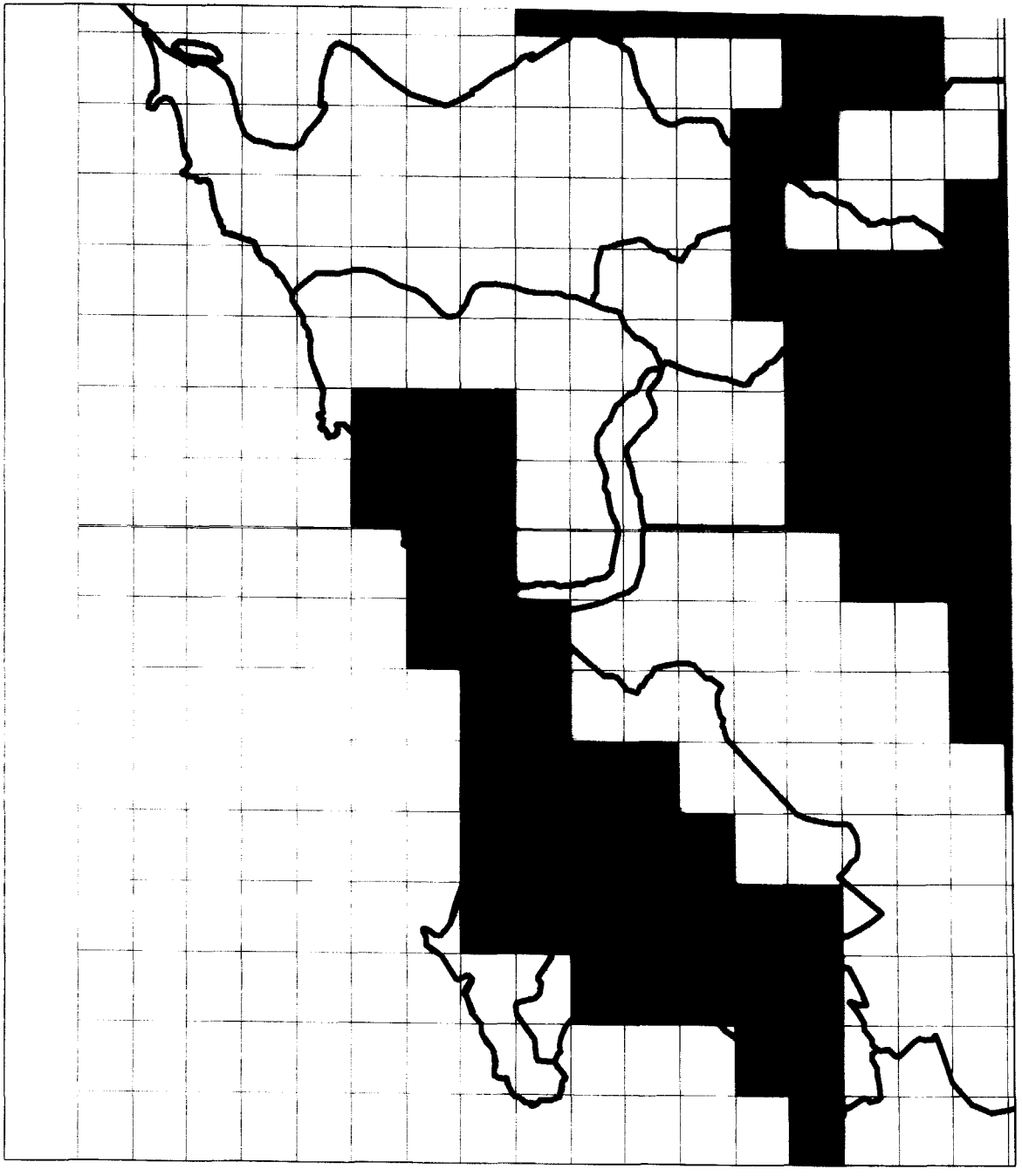
HOUSEHOLDS
SAI'S
BG 1543.004
ROADS

BDBA7 012496D

PREPARED BY K. DOMBROWSKI (510)823-5025
GEOGRAPHIC INTELLIGENCE SERVICES - BUS MKT GRP

PROPRIETARY INFORMATION: NOT FOR USE OR DISCLOSURE
OUTSIDE PACIFIC BELL EXCEPT UNDER WRITTEN AGREEMENT

BODEGA BAY AREA
RES/BUS DENSITY
NINE GRID (AVERAGE)



- 0 - 10
- 11 - 50
- 51 - 150
- 151 - 500
- 501 - 2000
- 2001 - 5000
- OVER 5000
- BG 1543.004
- WIRE CENTER BOUNDARY

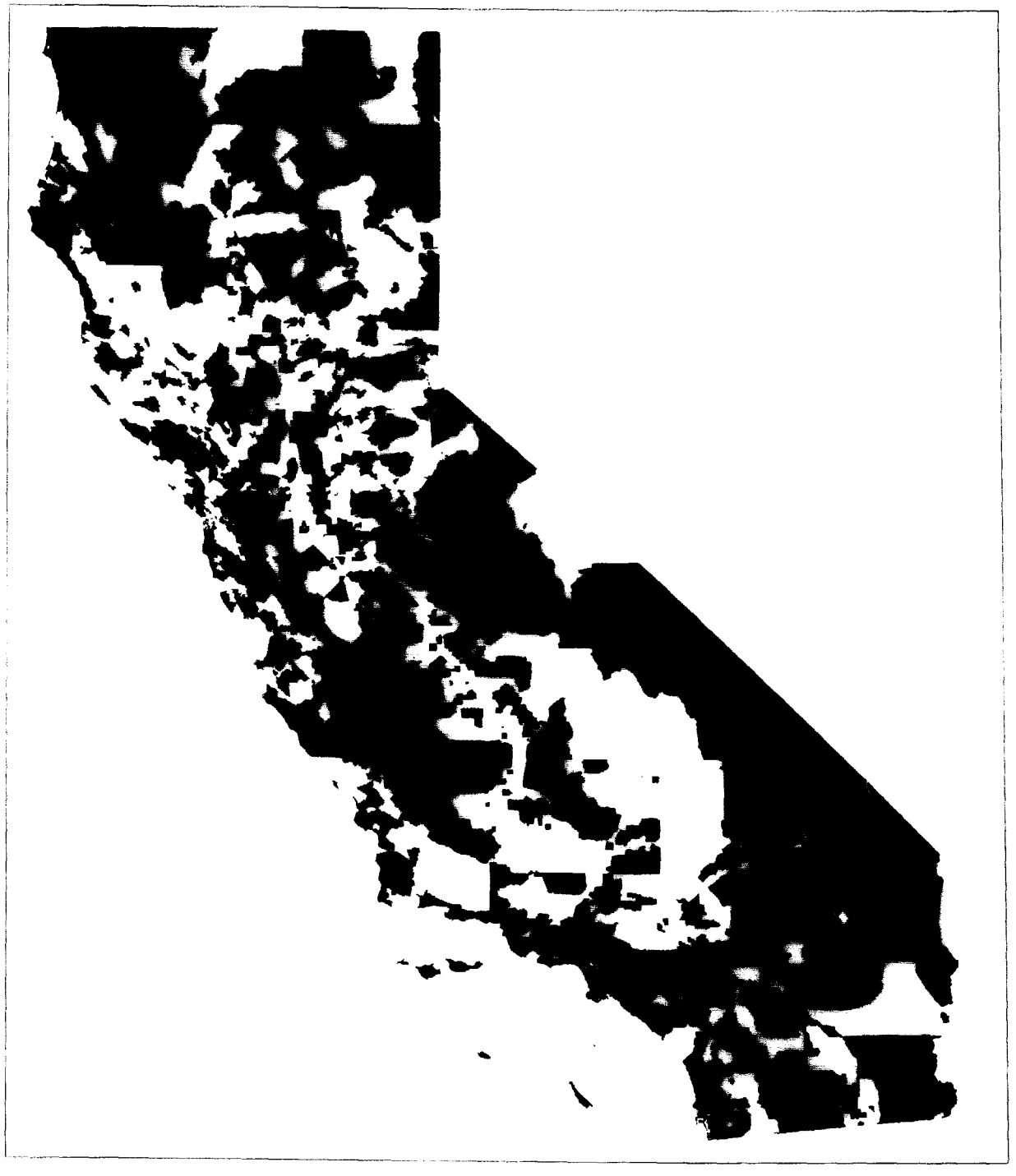
Scale in Miles

1

BDBA3 012496D

PREPARED BY PACIFIC BELL
GEOGRAPHIC INTELLIGENCE SERVICES
BUS MKT GRP

PROPRIETARY INFORMATION: NOT FOR USE OR DISCLOSURE
OUTSIDE PACIFIC BELL EXCEPT UNDER WRITTEN AGREEMENT



UNIVERSAL SUBSIDY AMOUNTS BY CENSUS BLOCK GROUP COST PROXY MODEL CALIFORNIA

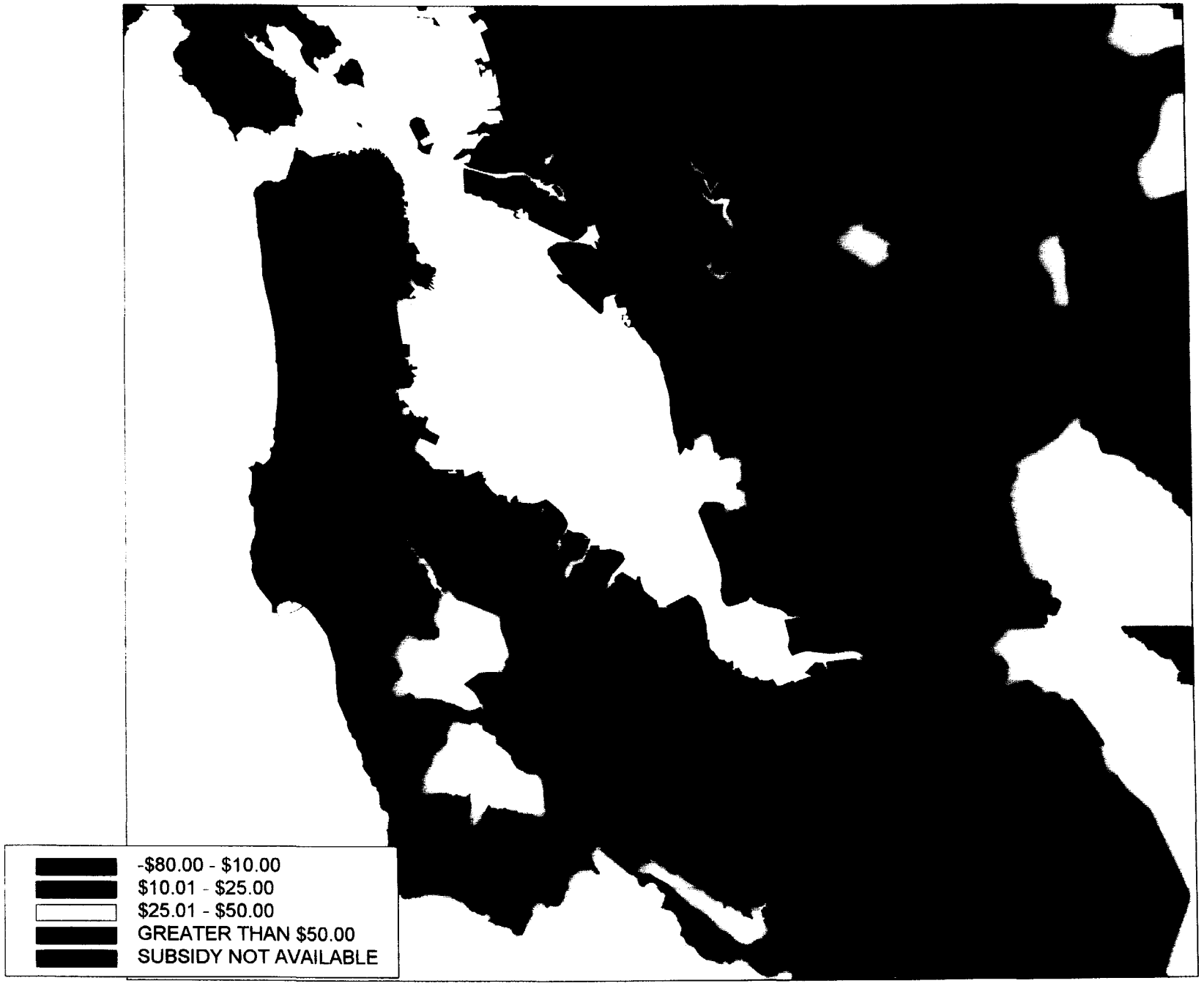
- -$80.00 - $10.00
- $10.01 - $25.00
- $25.01 - $50.00
- GREATER THAN $50.00
- SUBSIDY NOT AVAILABLE

PROPRIETARY INFORMATION: NOT FOR USE OR DISCLOSURE
OUTSIDE PACIFIC BELL EXCEPT UNDER WRITTEN AGREEMENT

PREPARED BY PACIFIC BELL
GEOGRAPHIC INTELLIGENCE SERVICES

SUB_CA 051496D

UNIVERSAL SUBSIDY AMOUNTS BY CENSUS BLOCK GROUP
COST PROXY MODEL - SAN FRANCISCO BAY AREA



PREPARED BY PACIFIC BELL
GEOGRAPHIC INTELLIGENCE SERVICES

PROPRIETARY INFORMATION: NOT FOR USE OR DISCLOSURE
OUTSIDE PACIFIC BELL EXCEPT UNDER WRITTEN AGREEMENT

SUB_BA 051496D

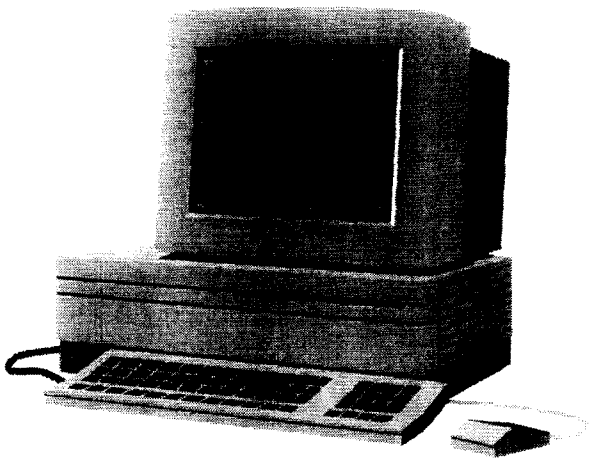
UNIVERSAL SUBSIDY AMOUNTS BY CENSUS BLOCK GROUP
COST PROXY MODEL - LOS ANGELES AREA

PREPARED BY PACIFIC BELL
GEOGRAPHIC INTELLIGENCE SERVICES

PROPRIETARY INFORMATION: NOT FOR USE OR DISCLOSURE
OUTSIDE PACIFIC BELL EXCEPT UNDER WRITTEN AGREEMENT

SUB_LA 051496D

HATFIELD MODEL CRITIQUE



UNIVERSAL SERVICE (96-45)

PROBLEMS WITH HATFIELD MODEL

- Structure of the model
- User unfriendliness
- Erroneous inputs and assumptions
- Proprietary inputs
- Improper validation
- AT&T vs Pacific Bell Comparison

STRUCTURE OF THE MODEL

- Links embedded expense and investment relationships with incremental investments
- Ties structure (poles and conduit) investment to cable sizes
- Can not capture large and small LEC differences
- Fails to incorporate rural clustering