

Unlocking Innovation Through BPS

ETCC Summit, 9/16/25



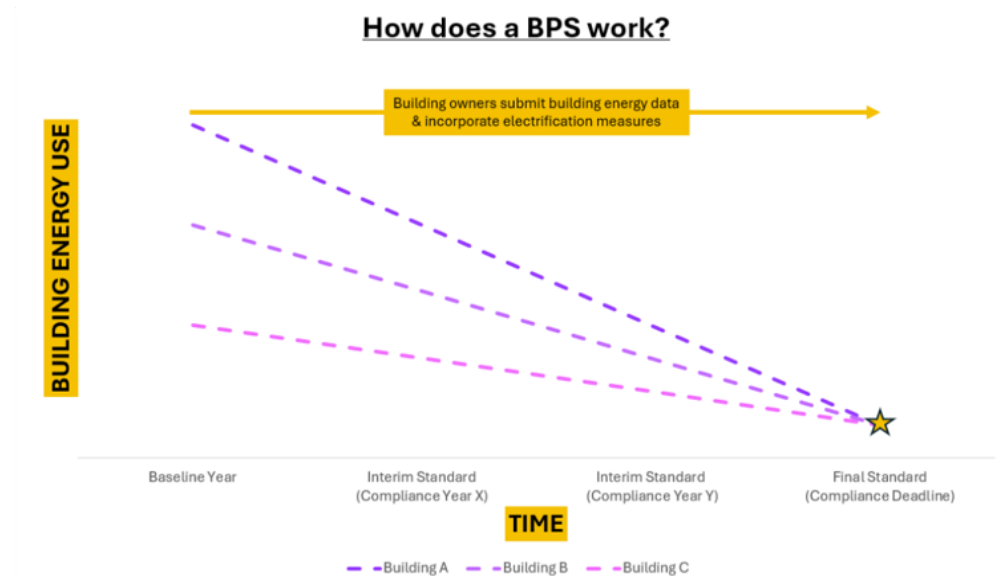
Agenda

- BPS Definition
- BPS Value Proposition
- BPS Challenges & Lessons Learned
- BPS Status in California
- How Manufacturers Can Help Owners
- Innovative Tools for BPS Development



What are Building Performance Standards (BPS)?

- Standards to reduce carbon emissions in buildings by improving energy, gas, and water use, and peak demand
- Requirements increase over time to drive continuous, long-term improvement in the building stock
- Typical Applicability: Buildings larger than 20k sq. Ft.
- **Overall Goal of BPS**
- Empower building owners with a clear roadmap and resources to improve building performance – enhancing affordability, reducing pollution and greenhouse gas emissions, and improving air quality.
- BPS helps make buildings healthier to work and live in, while supporting long-term sustainability and operational efficiency



Source: [Engage WeHo | Improving Energy Performance in Existing Buildings](#)

Why develop BPS?

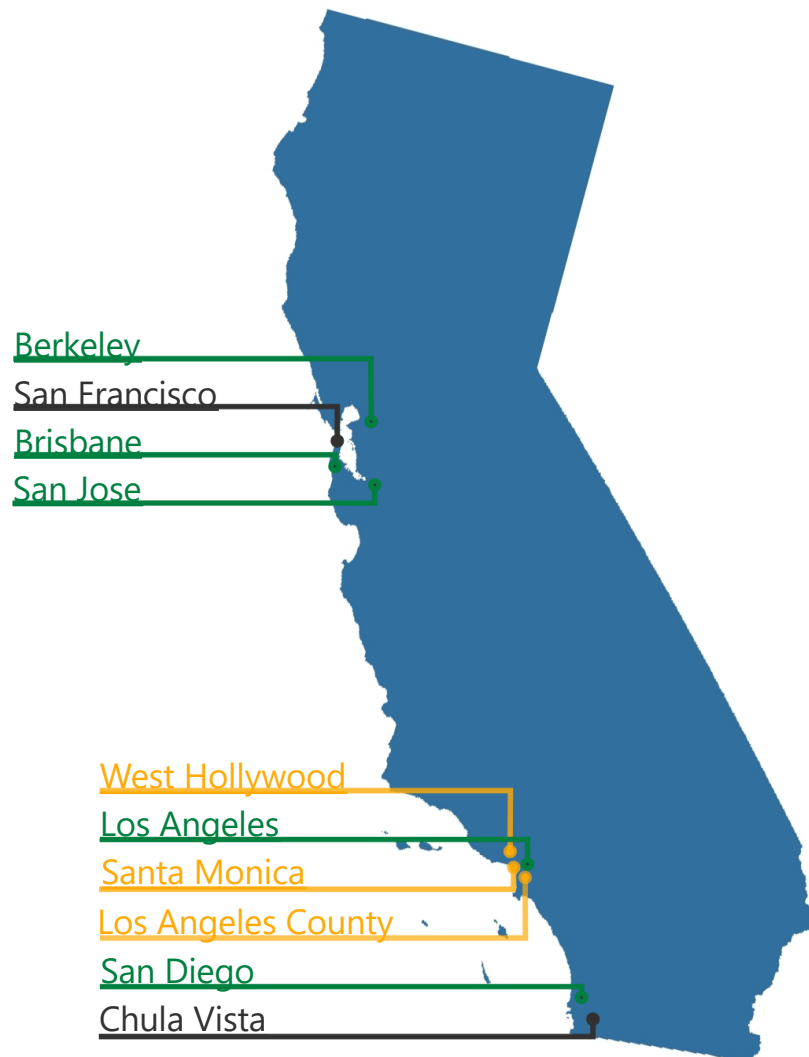
- Statewide benchmarking requirements (AB 802)
- Maintain and improve existing building operations by connecting benchmarking to energy and water efficiency, sustainability, occupant comfort, and load flexibility
- Clear efficiency goals give building owners a roadmap to improve energy performance and reduce GHG emissions



Lessons Learned in BPS Development

Challenges	Lessons Learned
Condos	<ul style="list-style-type: none">• Consider exceptions or partial compliance for shared spaces; address complexities of multiple ownership
Building stock analysis	<ul style="list-style-type: none">• Begin early with tax assessor data; corss-reference multiple datasets for accuracy
Staffing	<ul style="list-style-type: none">• Assess internal capacity; consider contracting support for covered buildings list and implementation
Newly developing policy	<ul style="list-style-type: none">• Prioritize stakeholder engagement; leverage technical assistance, incentives and external resources

KEY TAKEWAY – Early planning, stakeholder engagement, and leveraging available resources are critical to successful BPS implementation – especially when navigating complex building types and limited staffing.



BPS Status in California

Benchmarking Only

Benchmarking w/ Targets (BPS)

BPS Under Development

How can Manufacturers Help Owners?



- Provide high-efficiency products & expand heat pumps appliance lines
- Train distributors and contractors
 - High-efficiency systems
 - Installation guidelines
 - Utilize IOU training programs
- Understand upcoming air quality regulations from regional air districts
- Help unlock financing & incentives

Innovative Tools for BPS Development: Publicly Available

Building Stock Estimates

Building Estimates for [City of West Hollywood](#)

[Assumptions](#) [Share](#) [Download](#)

Residential **Nonresidential**

Climate Zone ☒ 9

Existing Buildings

[Data Sources](#)

Total	Buildings	Floor Area
as of 2020	1,756	29.0M ft ²

Metric y-axis

- ☐ Buildings
- ☐ Floor Area
- ☐ Energy Use
- ☐ Energy Intensity (EUI)
- ☒ Emissions
- ☐ Emissions Intensity

Category x-axis

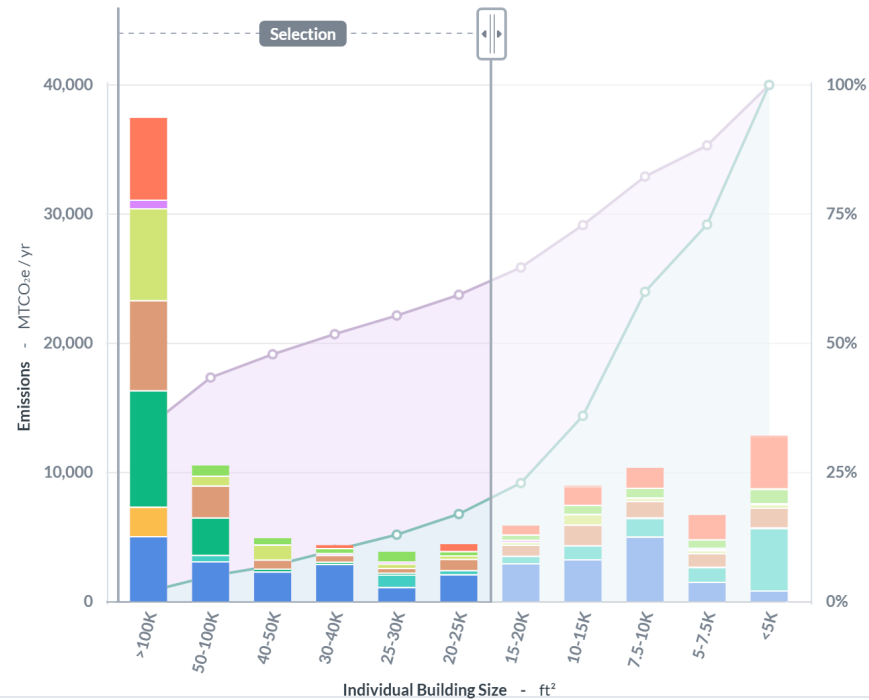
- ☐ None
- ☒ Building Size
- ☐ Building Type
- ☐ Vintage

Building Type

- ☒ All
- ☒ Apartment
- ☒ Full Serv Rest
- ☒ Hospital
- ☒ Hotel
- ☒ Office

Reset

Annual Emissions by Building Size



Selected Buildings

>20K ft², all types

Minimum Building Size ft²

20k

☐ exclude buildings over 50k

17% of Buildings
290 of 1,756 Buildings

62% of Floor Area
18.1M of 29.0M ft²

59% of Emissions
65,650 of 110,530 MTCO₂e/yr

Source: [Building Estimates for City of West Hollywood | Cost Effectiveness Explorer](#)

Southern California Edison

Innovative Tools for BPS Development: Custom

Forecasting

Settings

Jurisdiction ⓘ
West Hollywood

Excluded Building Types ⓘ

Compliance Years ⓘ

2030 | x 2035 | x 2045 | x

Comm. Emissions Targets (% reduction from 2025) ⓘ

25 | x 50 | x 100 | x

Res. Emissions Targets (% reduction from 2025) ⓘ

25 | x 50 | x 100 | x

Comm. Energy Targets (% reduction from 2025) ⓘ

5 | x 10 | x 15 | x

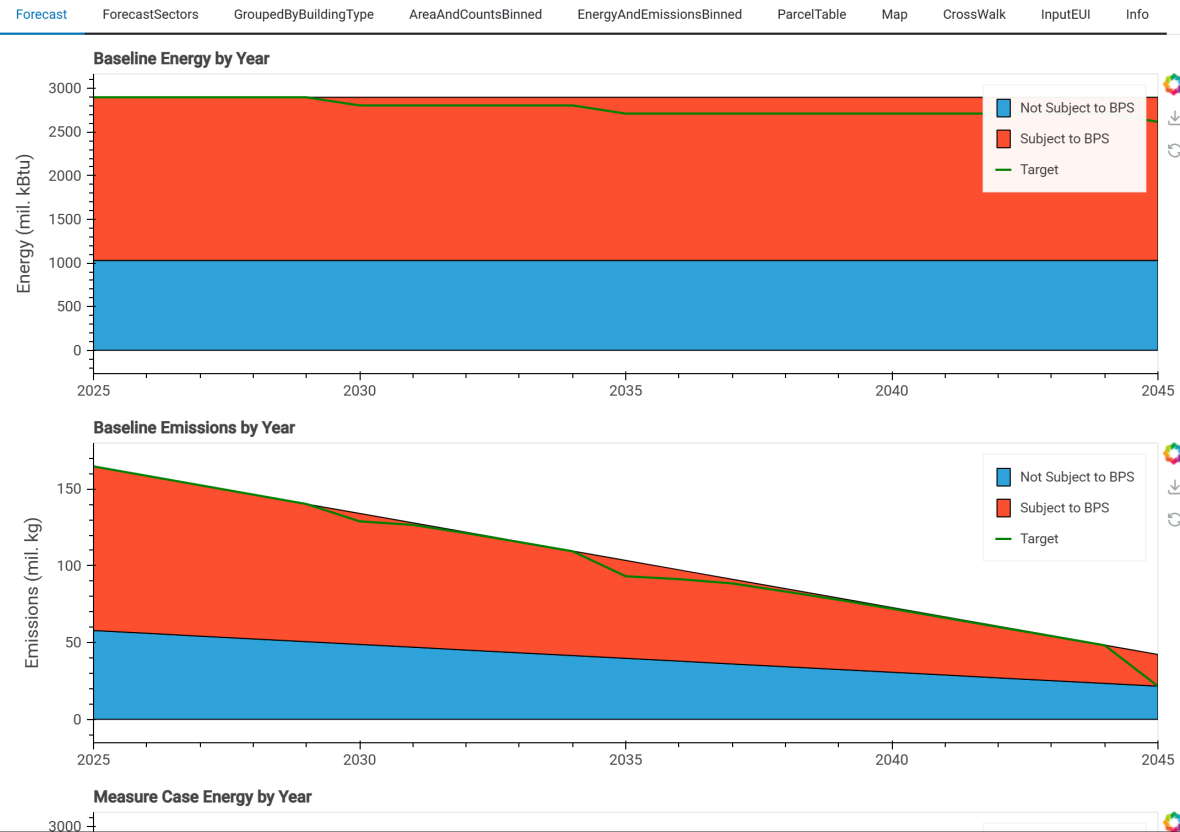
Res. Energy Targets (% reduction from 2025) ⓘ

5 | x 10 | x 15 | x

Final_GFA_SF: 20,000 .. 760,000

Electric kg-CO2e/kBtu Range: 0.00000 .. 0.05825

Download filtered.csv



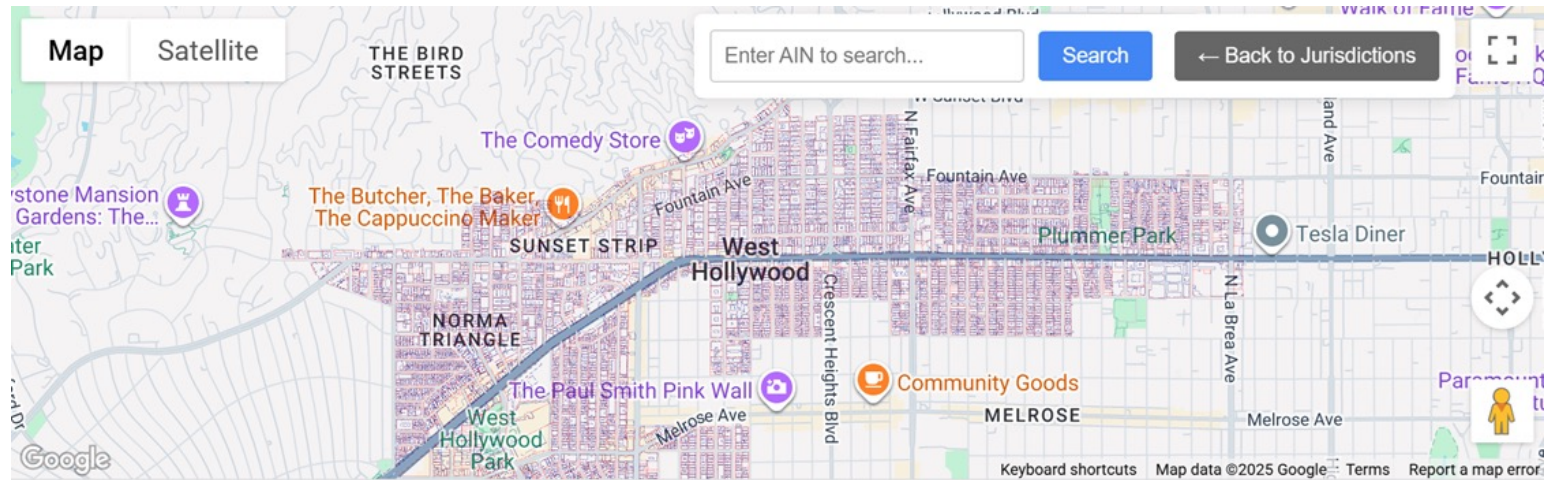
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Comparing Tax Assessor, Google, and Benchmarking

AIN	Assessor	Google	SubParts_SqftMain	PrimaryBuildingType	BuildingType
4337017041	[link]	[link]	757,278	Commercial, Wholesale and Manufacturing Outlet	Commercial, Wholesale and Manufacturing Outlet
5531018001	[link]	[link]	528,426	Industrial, Motion Picture, Radio and Television Industry	Industrial, Motion Picture, Radio and Television Industry; Commercial, Office Building; Industri
4337017042	[link]	[link]	478,253	Commercial, Wholesale and Manufacturing Outlet	Commercial, Wholesale and Manufacturing Outlet
4337017043	[link]	[link]	416,078	Commercial, Office Building	Commercial, Office Building
5531021030	[link]	[link]	366,349	Residential, Five or More Apartments or Units; Four Stories and Less	Residential, Five or More Apartments or Units; Four Stories and Less

AIN	Assessor	Google	pm_gfa_sf	pm_PrimaryBuildingType	pm_BuildingType
4337017041	[link]	[link]	NaN		
5531018001	[link]	[link]	700,950	Mixed Use Property	Office (444499.0), Parking (369721.0), Other (256451.0)
4337017042	[link]	[link]	NaN		
4337017043	[link]	[link]	NaN		
5531021030	[link]	[link]	375,760	Multifamily Housing	Multifamily Housing (375760.0)

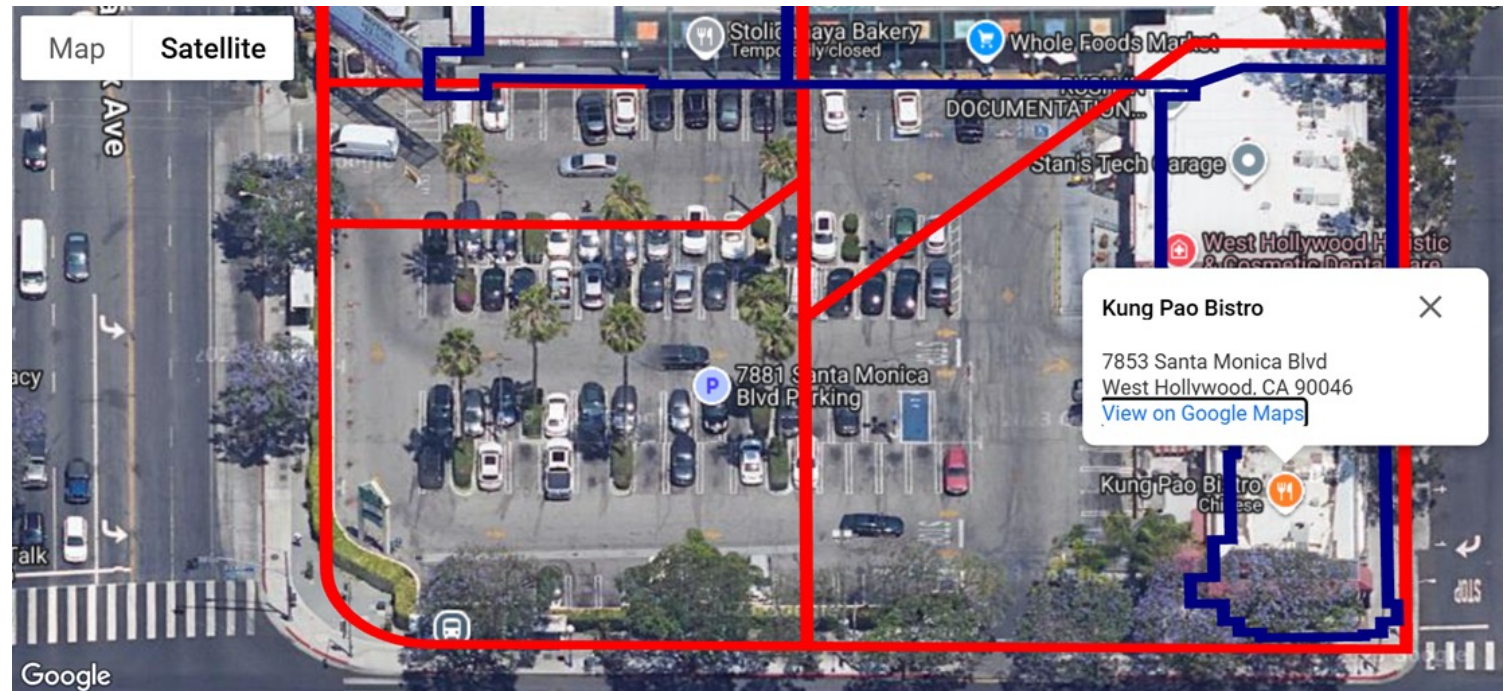
Mapping Parcels & Buildings



Building Allocations

BLD_ID	AIN	Grou...	Square Feet	Building Type	Alt Building Type
4337017041_Missing	4337017041	3975	757,278	Commercial, Wholesale and Manufacturi...	RetailStandalone
445575852882	4337017042	1673	478,253	Commercial, Wholesale and Manufacturi...	RetailStandalone
4337017043_Missing	4337017043	4221	416,078	Commercial, Office Building	MediumOffice
201700100573	5531021030	326	366,349	Residential, Five or More Apartments or ...	Multi-Family with 5+ Units
456371855043	5531018001	15	272,558	Industrial, Motion Picture, Radio and Tel...	MovieRadioTV
442755855302	4340028020	747	265,772	Commercial, Office Building	MediumOffice
5555002153_Missing	5555002153	3977	259,201	Commercial, Hotel and Motel	SmallHotel
457262855479	5531017020	3901	251,491	Commercial, Shopping Center (Neighbor...	RetailStripmall
201700100523	4339017059	314	238,361	Commercial, Hotel and Motel	SmallHotel
202000148822	4340026041	760	200,428	Commercial, Hotel and Motel	SmallHotel

Zooming
In



Building Allocations

[Clear Filter \(Group 345\)](#)


BLD_ID	AIN	Group ID	Square Feet	Building Type	Alt Building Type
452509855824	5530001038	345	10,400	Commercial, Store and Office	RetailStandalone
201700100621	5530001038	345	2,569	Commercial, Restaurant, Cocktail Lounge, Drive-In, Coffee Shop, etc.	FullServiceRestaurant

Southern California Edison

Exploring in
Satellite
View

MapSatellite

Enter AIN to search...Search← Back to Jurisdiction



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Building Allocations

Clear Filter (Group 3434)

BLD_ID	AIN	Group ID	Square Feet	Building Type	Alt Building Type
453873855674	5530011037	3434	6,685	Commercial, Auto, Recreation Equipment, Constr...	EquipSalesService

Contacts

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Backup Slides

South Coast Air Quality Management
District Rule 1146.2
Control of Oxides of Nitrogen from Large Water
Heaters, Small Boilers and Process Heaters

SCAQMD 1146.2: Large Water Heaters, Small Boilers and Process Heaters

- Amended on 6/7/24
- Type 1 Units: $\leq 400,000$ Btu/hr, excluding storage-type water heaters for individual residential units
- Type 2 Units: 400,000 Btu/hr to 2,000,000 Btu/hr

Table 3 – Compliance Dates for Zero-Emission Limits

Phase	Building Type	Compliance Date
Phase I	New Buildings	January 1, 2026
	Existing Buildings	January 1, 2029
Phase II	New Buildings	January 1, 2028
	Existing Buildings	January 1, 2031
Phase III	New Buildings	January 1, 2029
	Existing Buildings	January 1, 2033

Table 2 – Zero-Emission Limits, Compliance Schedule, and Unit Age

Equipment Category	NOx and CO Emission Limits (ppmv)	Compliance Schedule	Unit Age (years)
Type 1 Unit*	0	Phase I	15
Instantaneous Water Heater $\leq 200,000$ Btu/hr	0		25
Instantaneous Water Heater $> 200,000$ Btu/hr	0	Phase II	25
Type 1 Pool Heater	0		15
Type 2 Unit**	0		25
Type 1 High Temperature Unit	0	Phase III	25
Type 2 High Temperature Unit	0		25

* Referring to a Type 1 Unit that is not a High Temperature Unit, Pool Heater, or Instantaneous Water Heater.

** Referring to a Type 2 Unit that is not a High Temperature Unit or Instantaneous Water Heater.

Innovative Tools for BPS Development: Custom (Additional Slides)

Mapping Parcels

