

# DEVELOPMENT OF PROTECTED NATURAL AREAS IN THE MEGAPOLICES BASED ON COMPLEX MAP ANALYSIS

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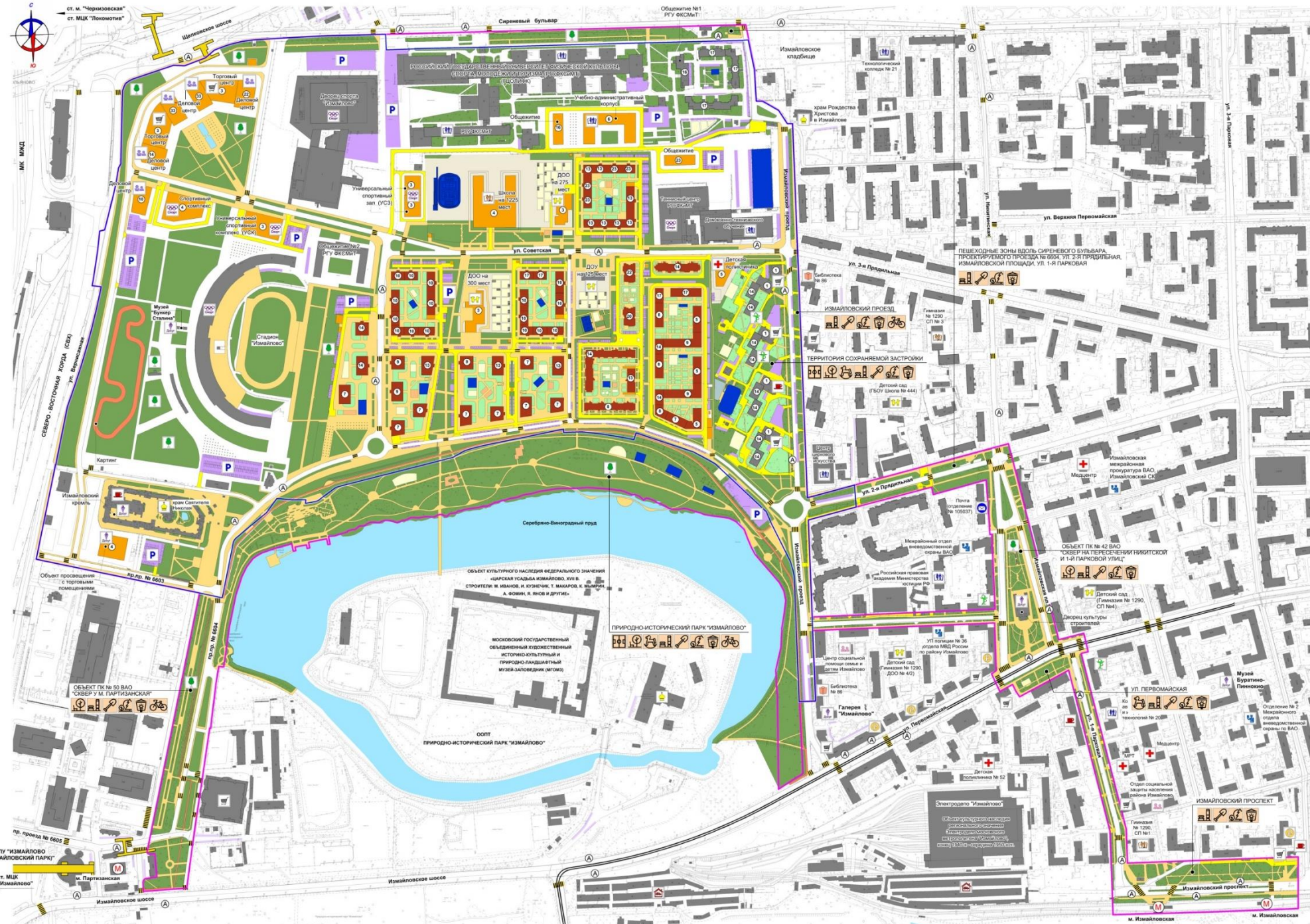
I have been working at the **State Autonomous Institution «Research and Project Institute of General Planning for the City of Moscow»**,  
(**Department of natural territories**) since the 2010.

Research and Project Institute of General Planning for the city of Moscow has specialized in a **territory planning** for more than 60 years. During these years the Institute has made notable contributions to the **urban development of Moscow city**, Moscow Region and other **cities of the Russian Federation**.

One of the main tasks of sustainable city planning is **the preservation and creation of conditions for the development of natural and green areas of the Natural Complex** of the city of Moscow.



# THE MAIN AREAS OF MY WORK



The main areas of my work are:

- development of the master plan materials (section natural areas);
- development of projects for planning especially protected natural territories and green areas, schemes of development and preservation of specially protected natural areas.



# GEOGRAPHIC INFORMATION SYSTEMS IN TERRITORIAL PLANNING

## BASE UNIT

### *Geographical basis:*

#### **vector data:**

roads,  
building,  
water,  
urban planning  
regulation lines,  
administrative division

#### **raster data:**

aerial photography  
materials

## THEMATIC UNIT

### *Thematic layers existing:*

- use of territory
- town planning regulations
- engineering communication
- geological conditions and processes

## SPECIAL UNIT

### *Natural areas of Moscow:*

#### **vector data:**

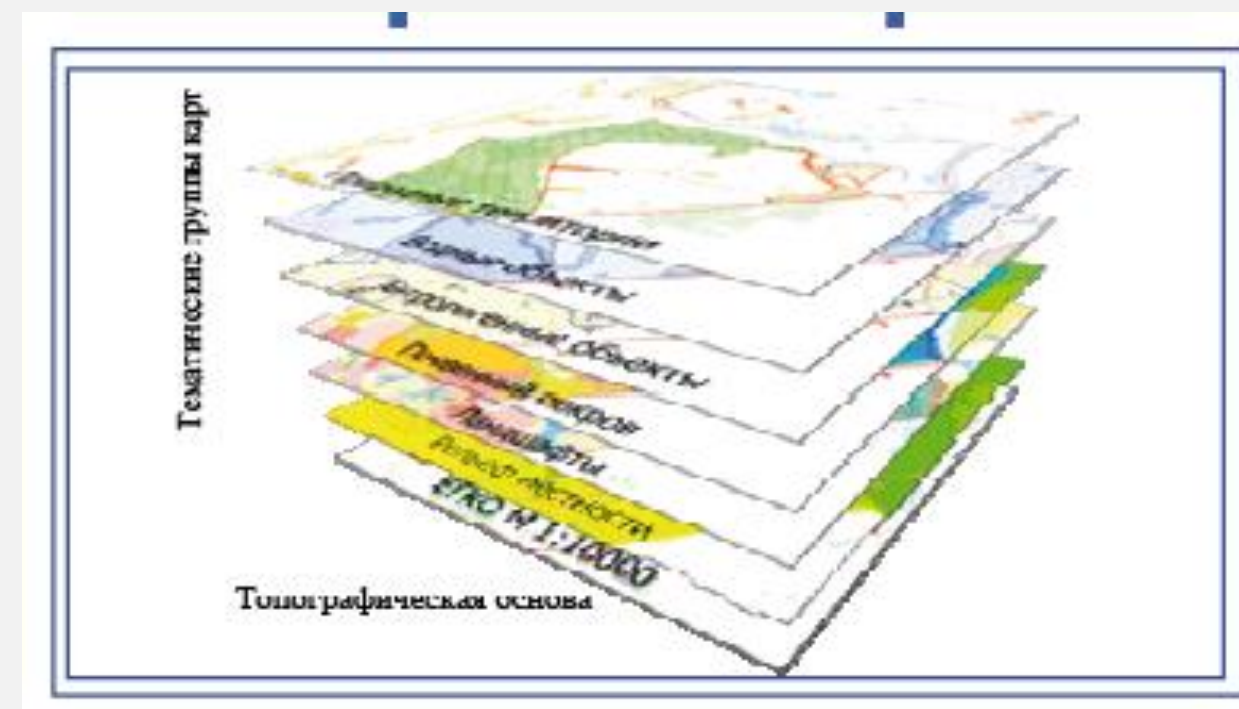
boundaries of natural  
areas, SPNT

#### **raster data:**

plans, maps of natural  
objects

#### **attribute data**

## DECISION MAKING UNIT





# HISTORICAL DEVELOPMENT OF THE NATURAL FRAMEWORK OF MOSCOW

## General Development Plan of Moscow, 1935



- residential quarter
- current border of Moscow
- projected border of Moscow
- green spaces

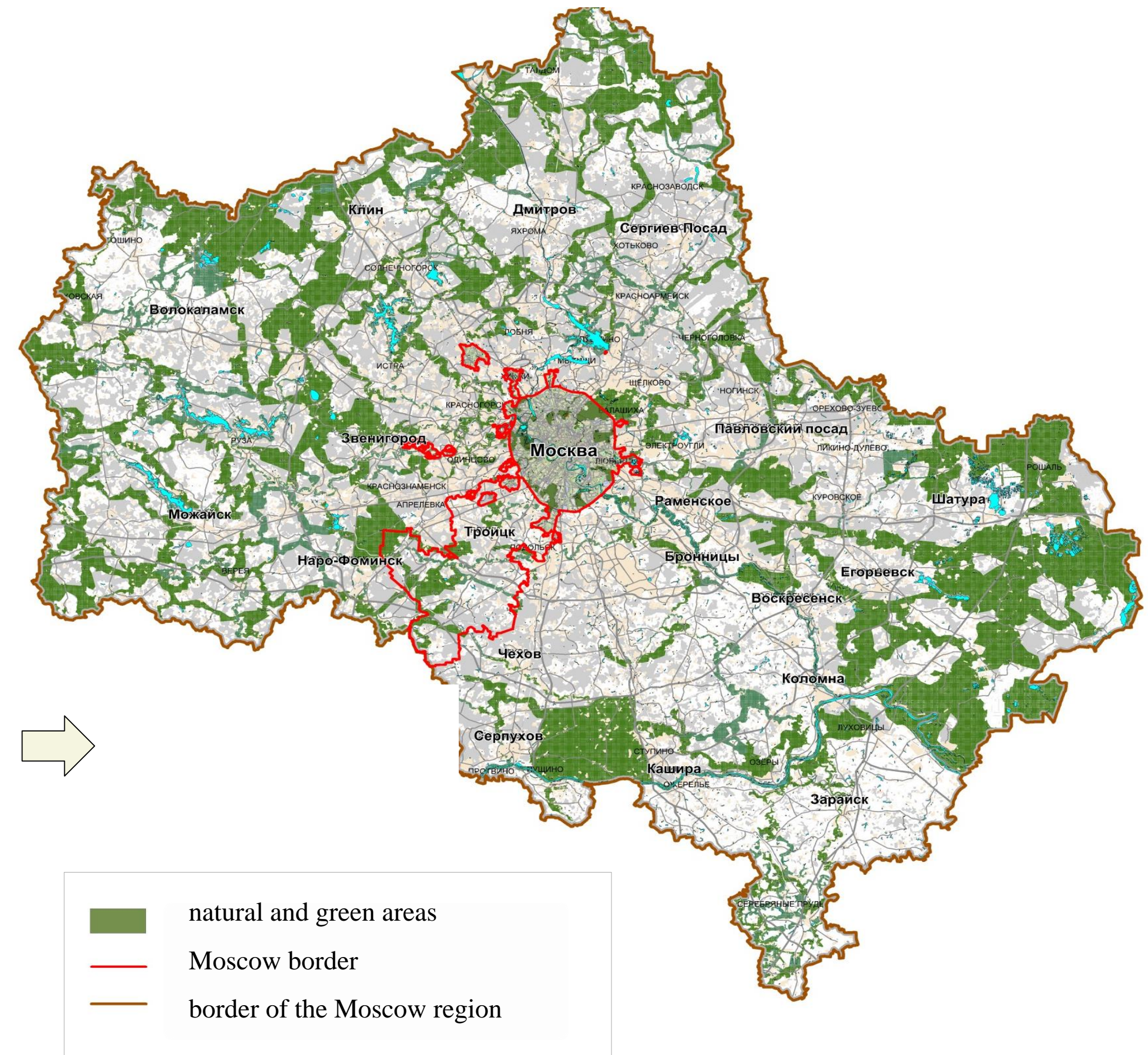
## General scheme of Moscow Landscaping, 1975



- boundaries of planning zones
- boundaries of planning areas
- urban community centers
- planning solution centers
- green spaces



## 2012-2019





# COMPLEX OF NATURAL AND GREEN AREAS OF MOSCOW

The complex of natural and green areas of Moscow includes (in accordance with the current legislation):

## Specially protected natural areas

(federal and regional)



*National Park «Losiniy ostrov»*



*Natural Historical Park "Pokrovskoe-Streshnevo"*

## Natural areas (including specially protected green areas)

they have environmental, nature-recreational, environmental protection and other natural qualities, but are not classified in a specially established natural protected areas



*Voronchovskiy Park  
(Object of the natural complex of the southern administrative district № 39)*



*Nagatinskaya floodplain (Object of the natural complex of the southern administrative district № 56)*

## Green areas:

- common use;
- limited use;
- special purpose



*Square (Object of the natural complex of the western administrative district № 122)*

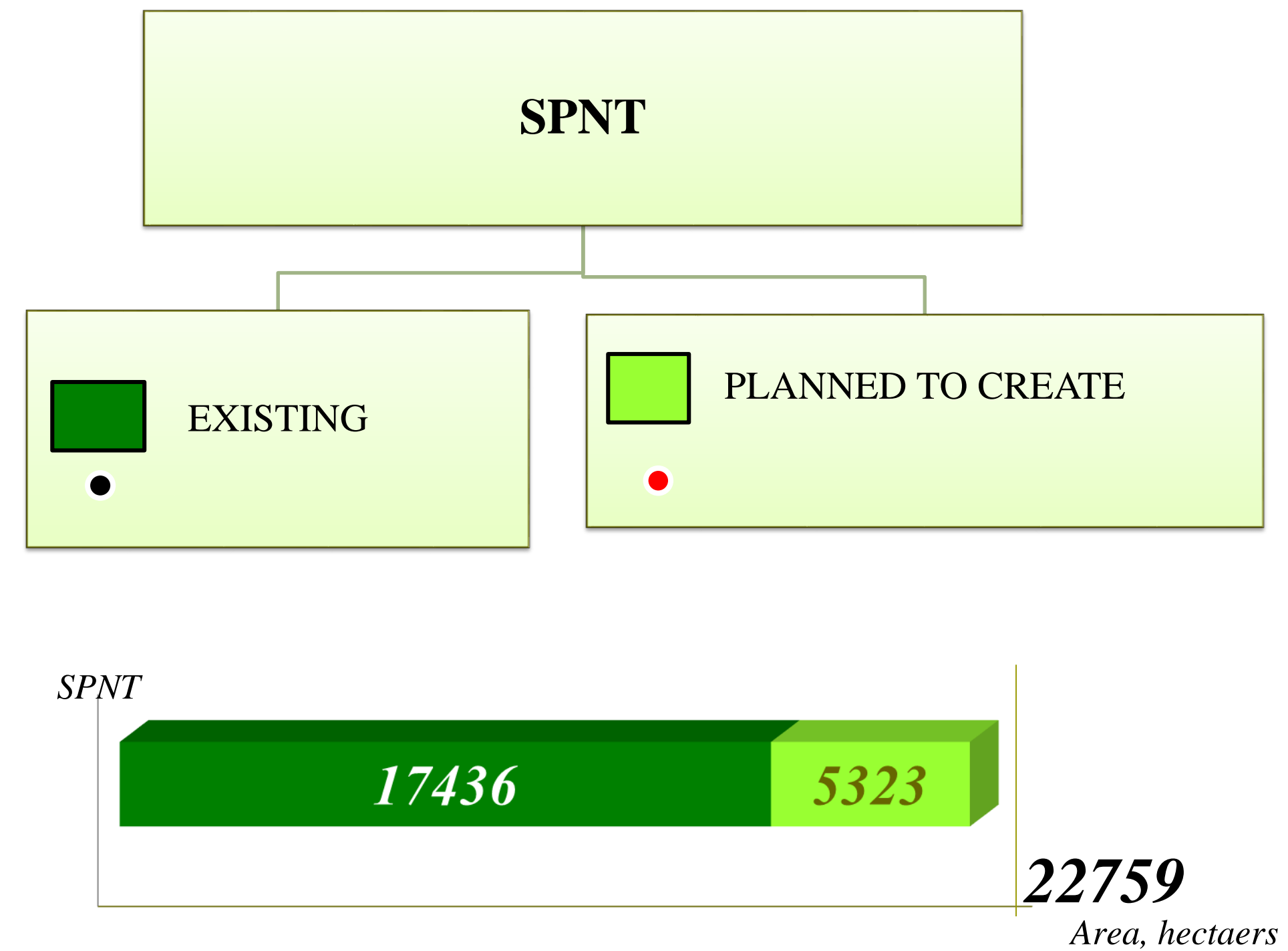
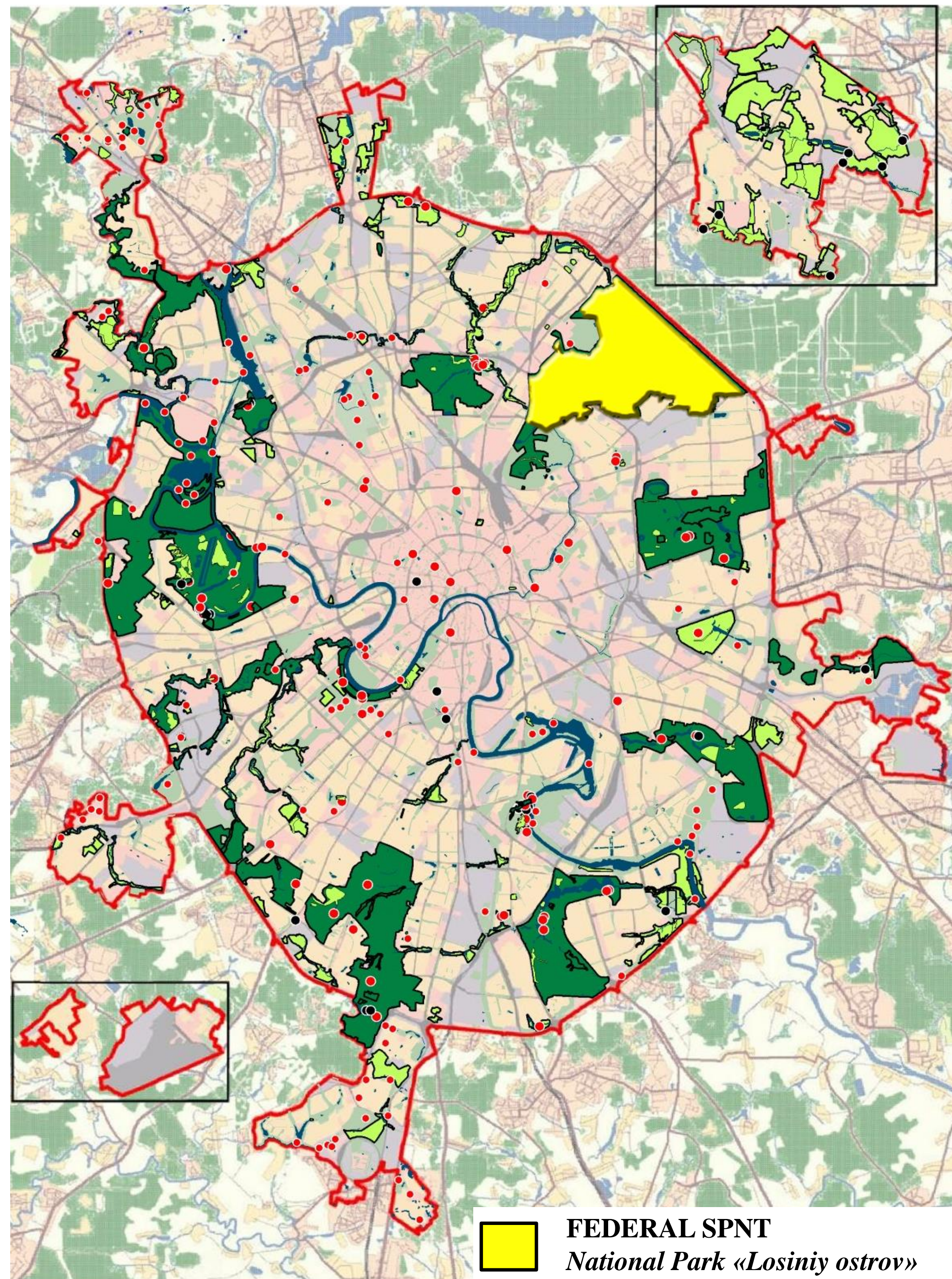


*Boulevard (Object of the natural complex of the central administrative district № 232)*



# SCHEME OF DEVELOPMENT AND PLACEMENT OF SPECIALLY PROTECTED NATURAL TERRITORIES (SPNT) IN THE CITY OF MOSCOW (within the borders of Moscow until July 1, 2012)

- ❖ CURRENTLY, 118 SPNT ARE FORMED IN MOSCOW
- ❖ BY 2025, ANOTHER 210 SPNT WILL BE CREATED





# CONCLUSION

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- GIS are the basis for planning of natural areas of the Moscow region. GIS accumulate, systematize, process and maps-visualize large amount of information.
- GIS allow to use a seamless approach for different scales: from small parks to urban gardening in general.
- The obtained and map-visualized results allow you to track the most valuable natural areas, to keep records of their biodiversity and to analyze in real time the processes occurring in these territories.
- The results obtained are used to update the General Plan of Moscow within its new borders and ensure the rational development of territories.



Thanks for attention!

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