Regional setting

i) Location
ii) Ecological boundaries
iii) Vegetation

Regional settings
North most part of *Konkan* lowlands of Maharashtra

Climate
Tropical warm and humid

Annual rainfall
2293.4 mm

Temperature variation
17 ^{0}C to 34 ^{0}C

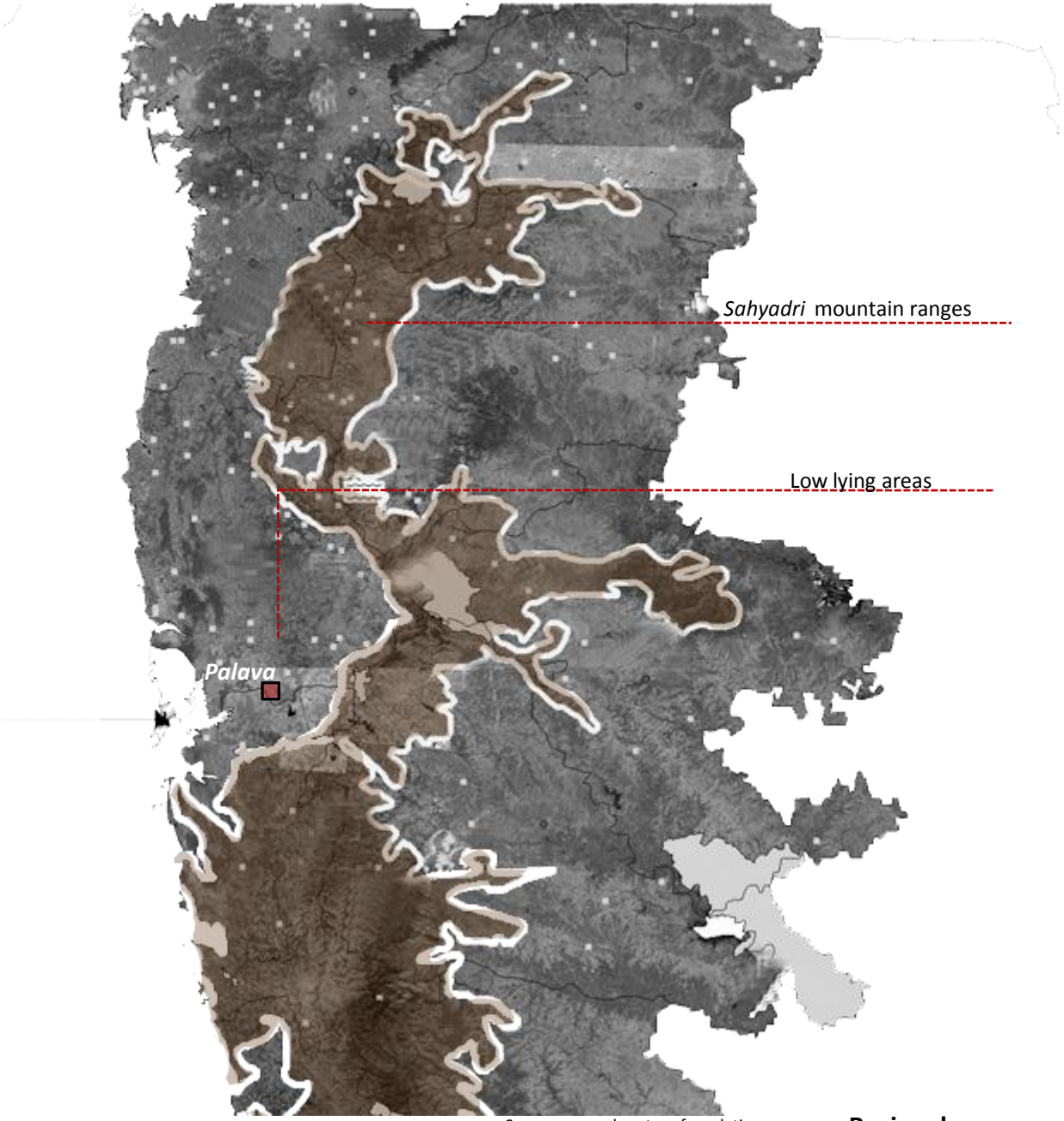
Rock type
Basaltic rock

Soil type
Coarse, medium black, clayey, shallow soils

Main River
Ulhas river

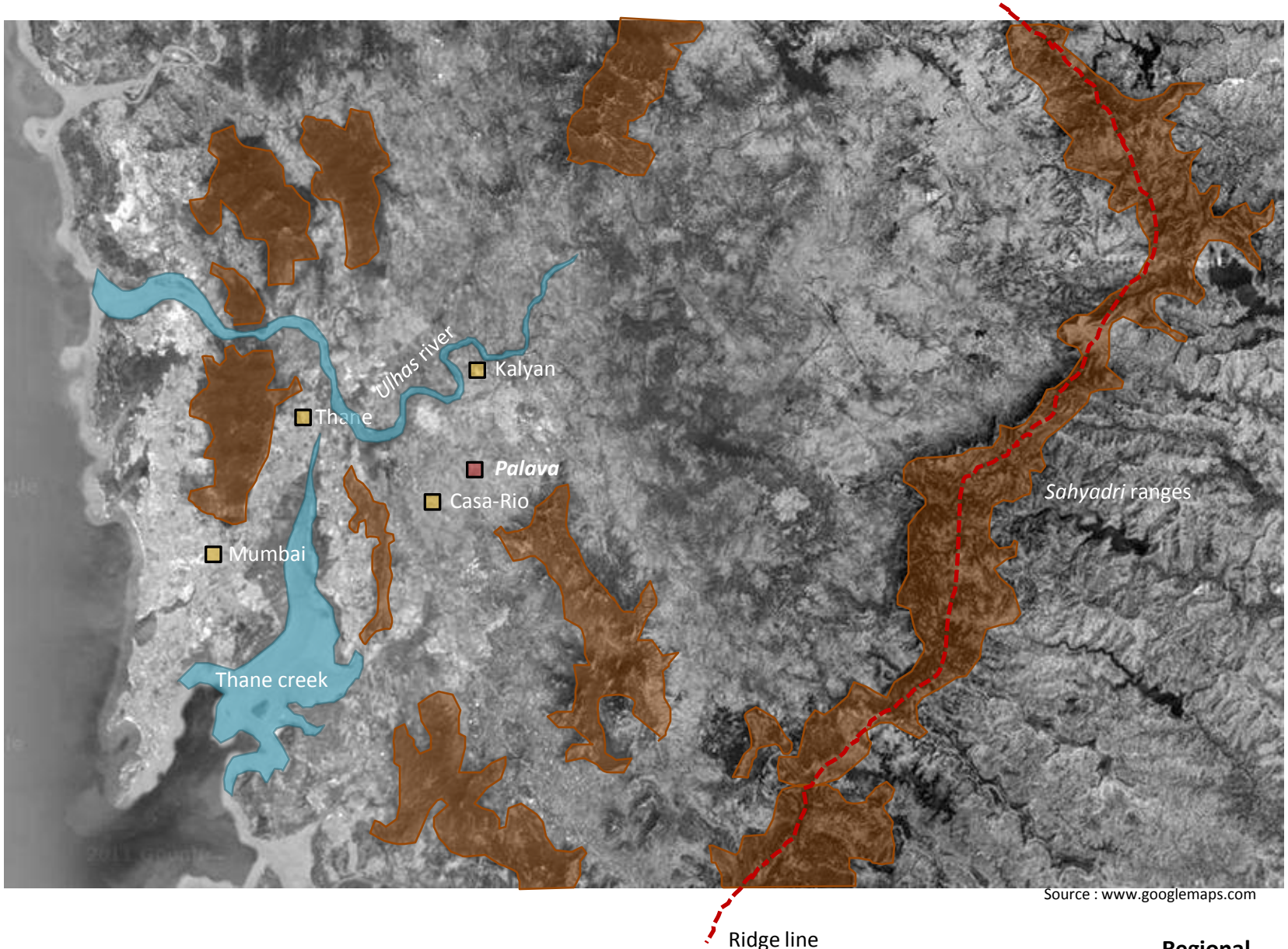
Agriculture
Mainly paddy cultivation

Other traditional occupation
Stone cutting



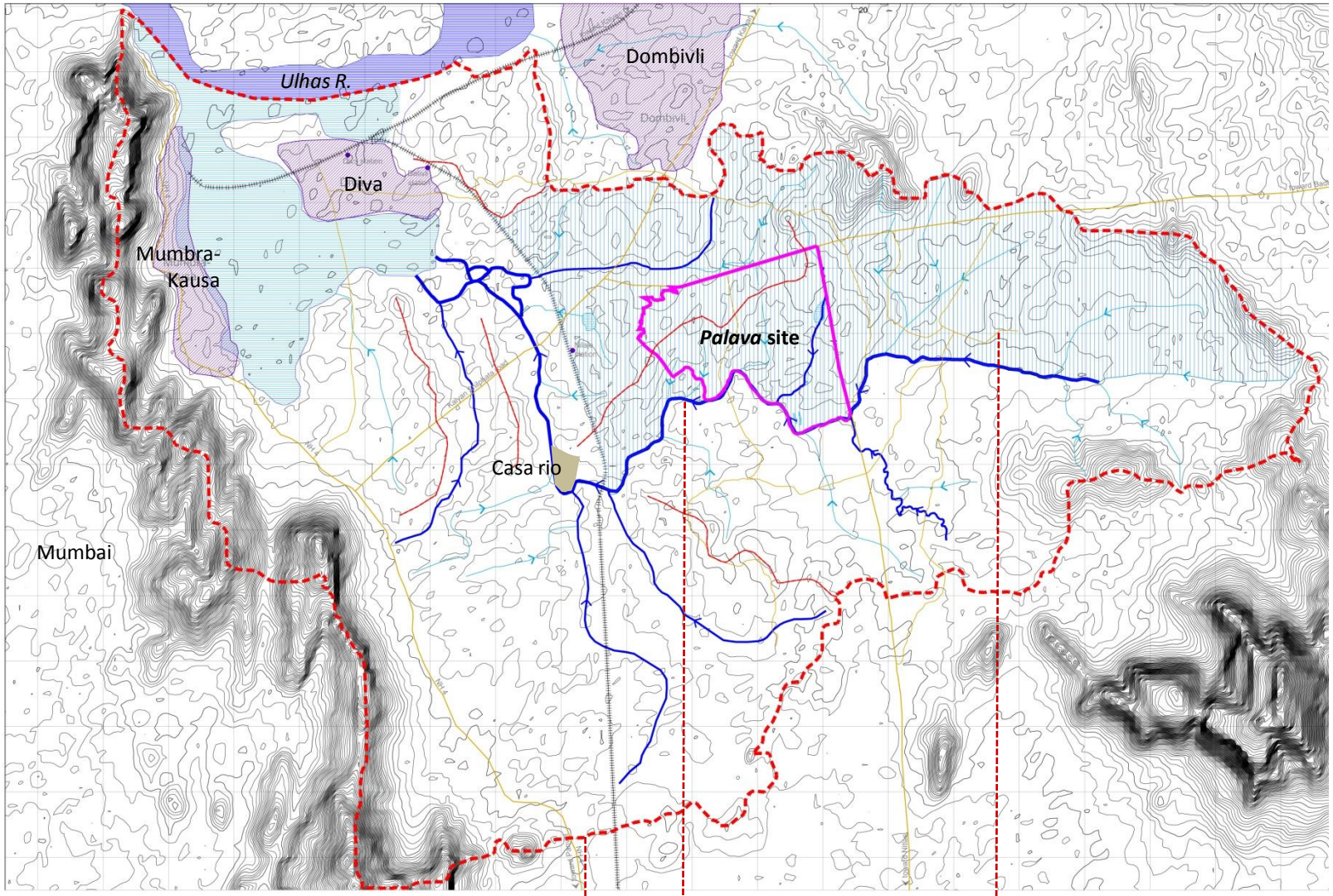
Source : www.keystonefoundation.org

Location **Regional setting**



Source : www.googlemaps.com

Location **Regional setting**



Area of sub-catchment- 8071.60 acres
Area of *Palava* site- 1329.98 acres (16.5 % of sub- catchment area)

Ecological boundary

Regional setting

Forest type
Intermediate deciduous teak forest

Tectona – Terminalia – Adina – Anogeissus series

Deciduous multistoried forest
Height attained by top canopy :
15 – 25 m

Top storey	Middle storey	Under storey
Tectona grandis	*Acacia catechu*	*Gardenia resinfera*
Terminalia tomentosa	*Bridelia retusa*	*Wrightia tomentosa*
Terminalia bellerica	*Morinda tinctoria*	*Ziziphus rugosa*
Adina cordifolia	*Buetea monosperma*	*Xeromphis spinosa*
Anogeissus latifolia	*Wrightia tinctoria*	*Meyna laxiflora*
Diospyros melanoxylon	*Casearia tomentosa*	*Gardenia latifolia*
Ougeinia oojeinensis	*Bauhinia racemosa*	*Carrisa congesta*
Lagerstroemia parviflora	*Emblica officianalis*	*Flacourita indica*
Lannea coromandelica	*Elaeodendron glaucum*	*Holarrhena antidysentrica*
Grewia tiliaefolia	*Aegle marmelos*	*Helicteres isora*
Schleichera oleosa	*Bauhinia purpurea*	*Lantana camara*
Madhuca indica	*Kydia calycina*	*Carvia callosa*
Bombax ceiba	*Careya arborea*	*Cassia tora*
Schleichera oleosa	*Grewia tiliaefolia*	*Azanza lampas*
Albizia procera	*Mallotus philippensis*	*Woodfordia fruticosa*
Pterocarpus marsupium		*Euphorbia nivulia*
Dalbegia latifolia		
Miliusa tomentosa		
Bridelia squamosa		
Stereospermum personatum		

Bamboo: *Dendrocalamus strictus*

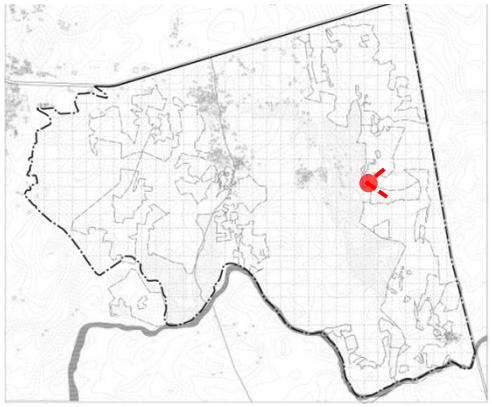
Source : Forest ecology by G . S. Puri

Site study

Landscape typologies

i) Stone quarry
ii) Rock type
iii) Soil excavation
iv) Soil type
v) River and its edges
vi) Marshes and other water bodies
vii) Trees
viii) Grasses
ix) Agriculture
x) Wild flowers





Stone quarry, Rock types, Soil excavation, Soil type


1


2

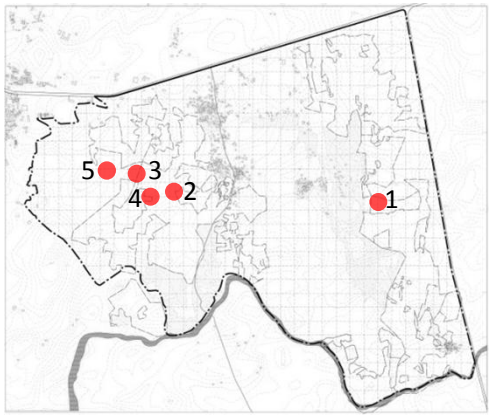

3


4


5


5

1. Deep, active quarry
2. Shallow, active quarry
3. Abandoned quarry, recent vegetation
4. Shallow, abandoned quarry, established vegetation
5. Deep, abandoned quarry, established vegetation



Stone quarry


1


2


3


4

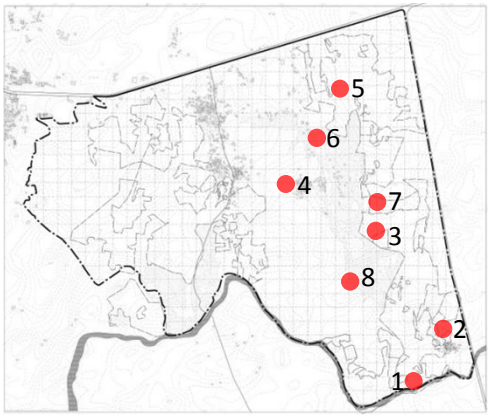

5


6


7


8

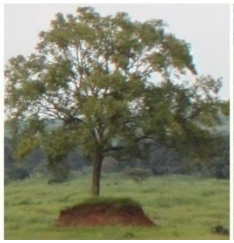
1. Bed rock near river
2. Fissured rock
3. Fissured rock
4. Boulders
5. Boulders along a quarry
6. Fissured rock
7. Rocky strata visible in the quarry
8. Boulders along a quarry



Rock types

Landscape typologies **Site study**


1


2

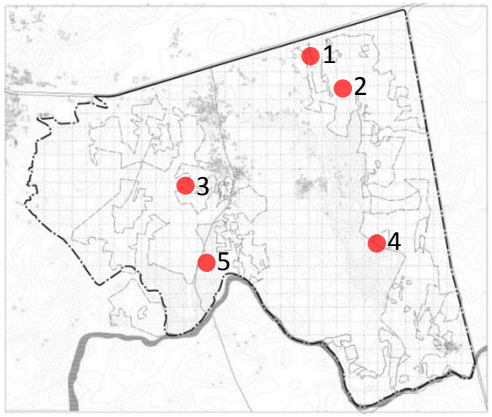

2


3


4


5

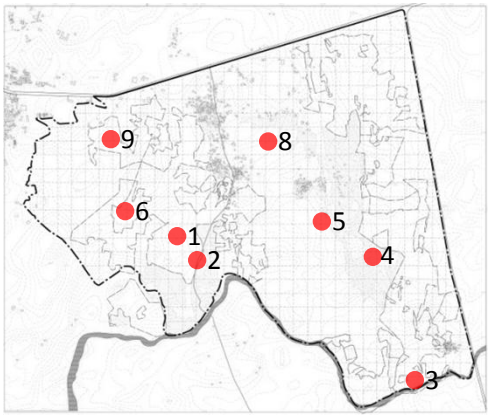
1. Soil excavation
2. Deep soil excavation.
3. Deep soil excavation
4. Shallow soil excavation
5. Brick kiln



Soil excavation



1. Slightly deep soil
2. Slightly deep soil with humus
3. Shallow soil with rock below
4. Shallow soil with boulders
5. Slightly deep soil in the grassland
6. Soil in the fields
7. Shallow soil along trail
8. Clayey soil along the stream
9. Soil in marshy areas

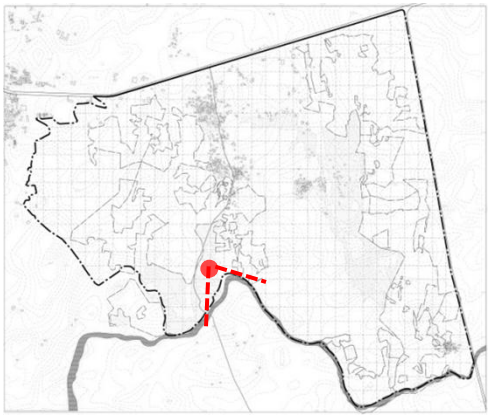


Soil types

Soils of undulating and rolling lands:
Extremely shallow, excessively drained loamy soils with severe erosion.
Associated with slightly deep, moderately well drained loamy soils with moderate erosion.

Landscape typologies **Site study**





River and its edges, Marshes and other water bodies



1



2

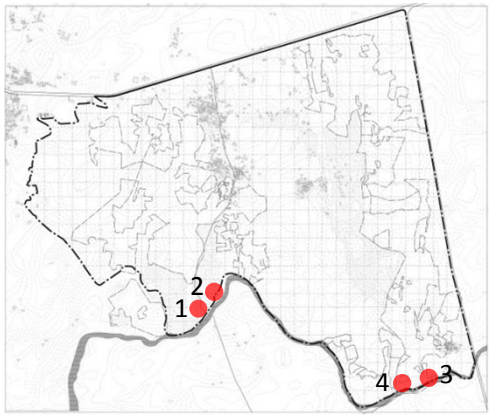


3



4

1. River edge, perennial grasses along.
2. River edge, perennial grasses along
3. River edge with exposed bed rock
4. Bedrock cut vertically with seasonal grasses



River and its edges


1


2

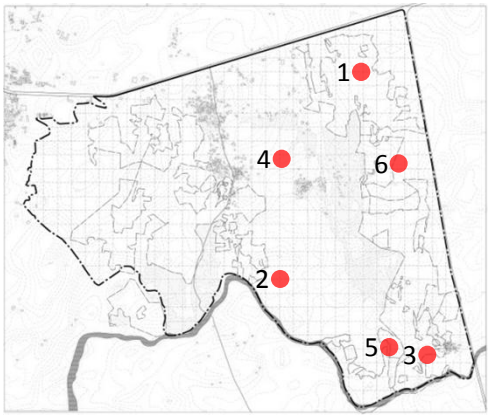

3


4


5

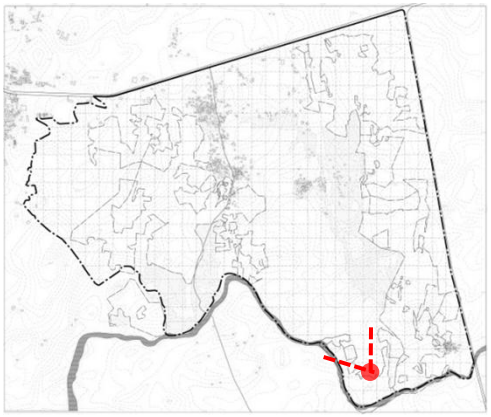

6

1. Abandoned quarry filled with rainwater
2. Excavated soil filled with water
3. Shallow puddles along river
4. Marsh along paddy fields
5. Shallow water body
6. Marsh: *Khuni* pond



Marshes and other water bodies





Trees

Landscape typologies **Site study**



1



2



3



4

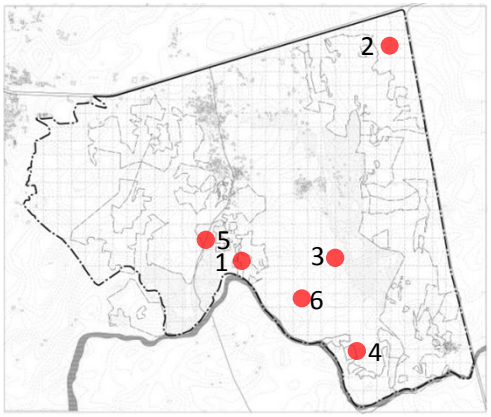


5



6

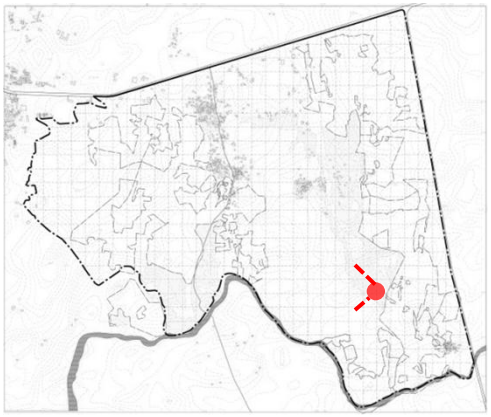
1. Grove along river edge
2. Grove along marsh
3. Tree within grassland
4. Grove near river edge
5. Isolated tree in fields
6. Birds' nests



Trees

Landscape typologies **Site study**





Grasses

Landscape typologies **Site study**


1


2


3

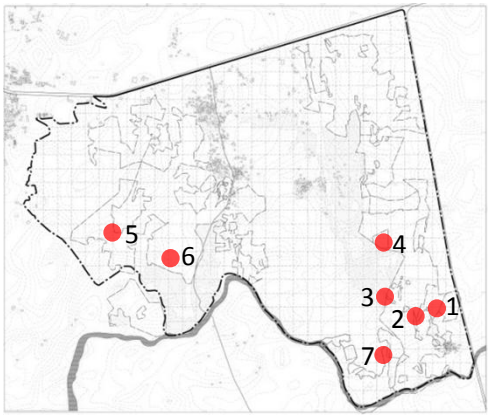

4


5


6


7

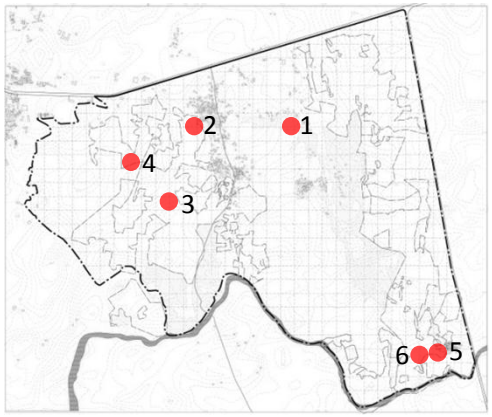
1. Seasonal grasses
2. Seasonal grasses
3. Seasonal grasses
4. Seasonal grasses
5. Seasonal grasses
6. Seasonal grasses
7. Perennial grasses along marsh



Grasses



1. Paddy fields
2. Paddy fields
3. Paddy fields
4. Seasonal vegetable
5. Seasonal vegetable
6. Seasonal vegetable



Agriculture

Landscape typologies **Site study**



Wild flowers

Landscape typologies **Site study**

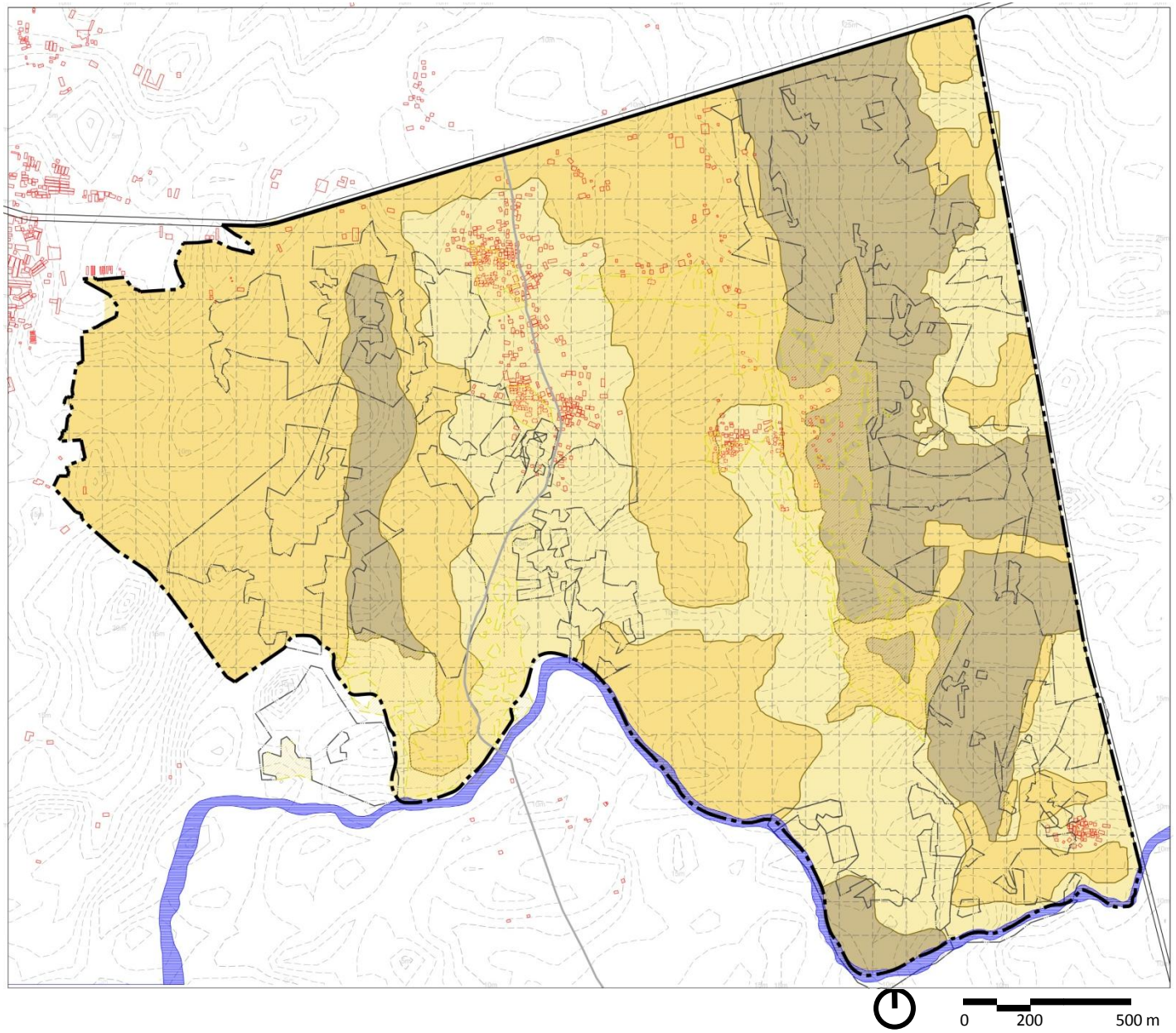


Wild flowers

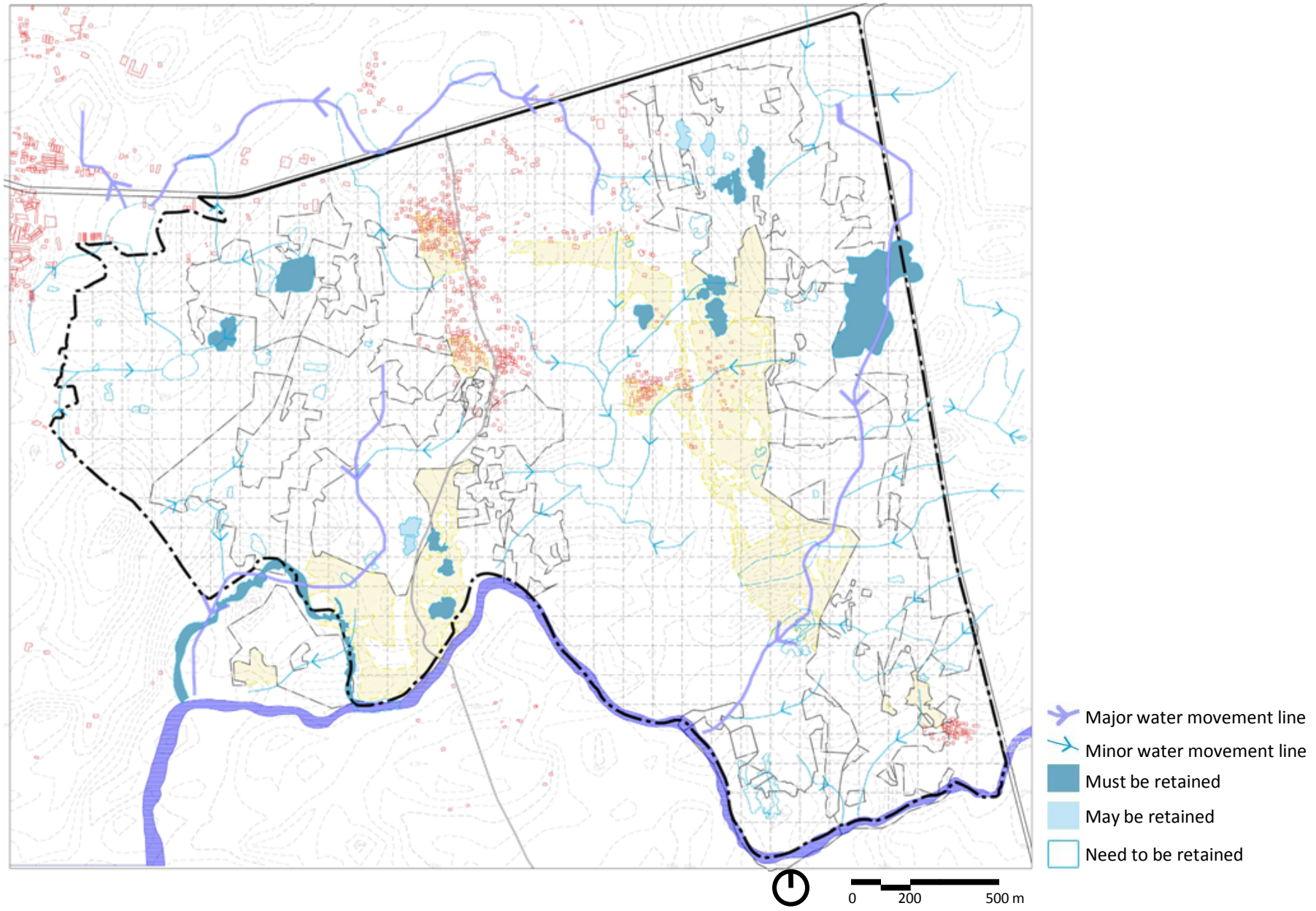
Landscape typologies **Site study**

Analysis

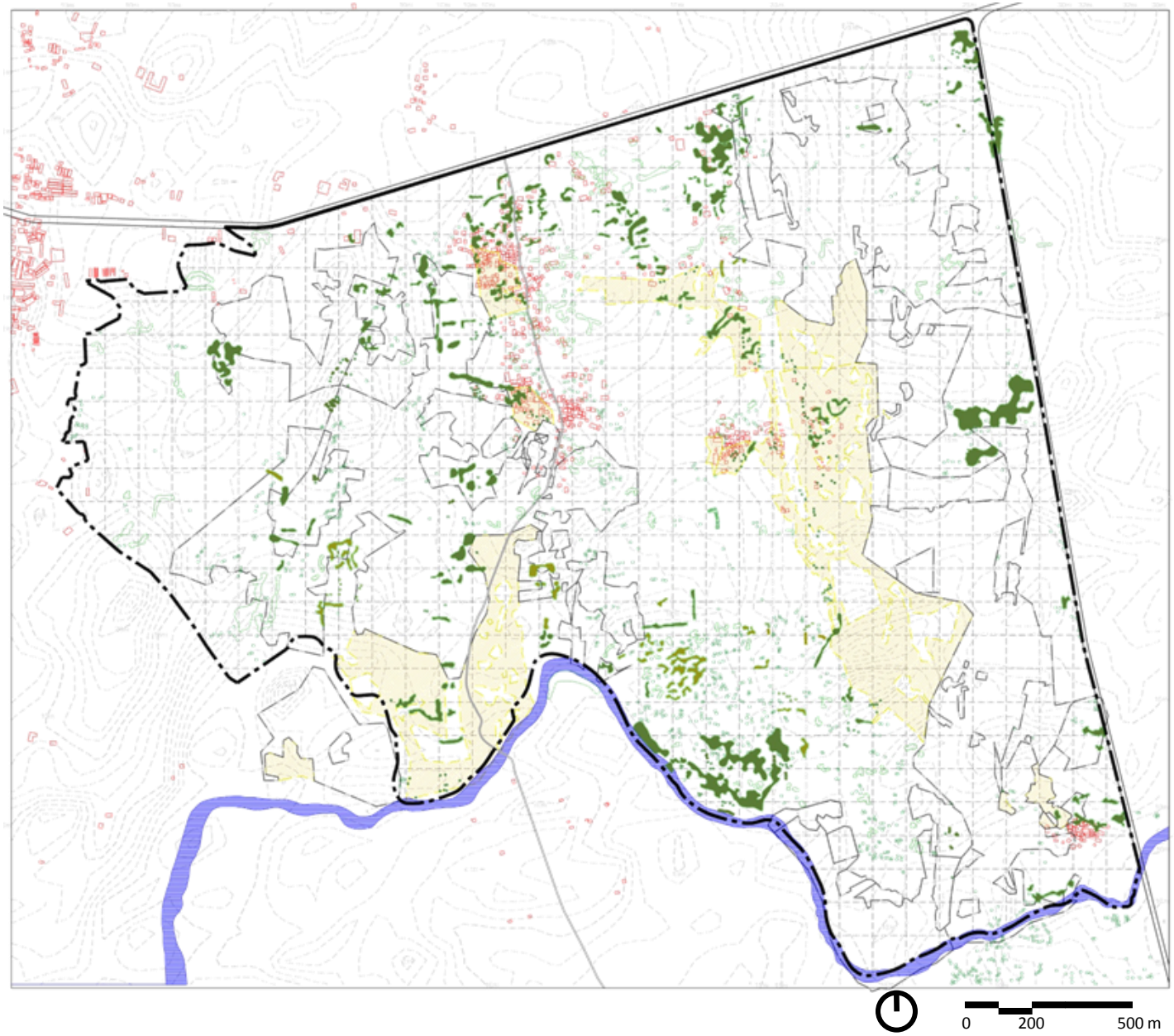
i) Soils
ii) Hydrology
iii) Vegetation
iv) Trees
v) Settlements



Soils **Analysis**



Hydrology **Analysis**

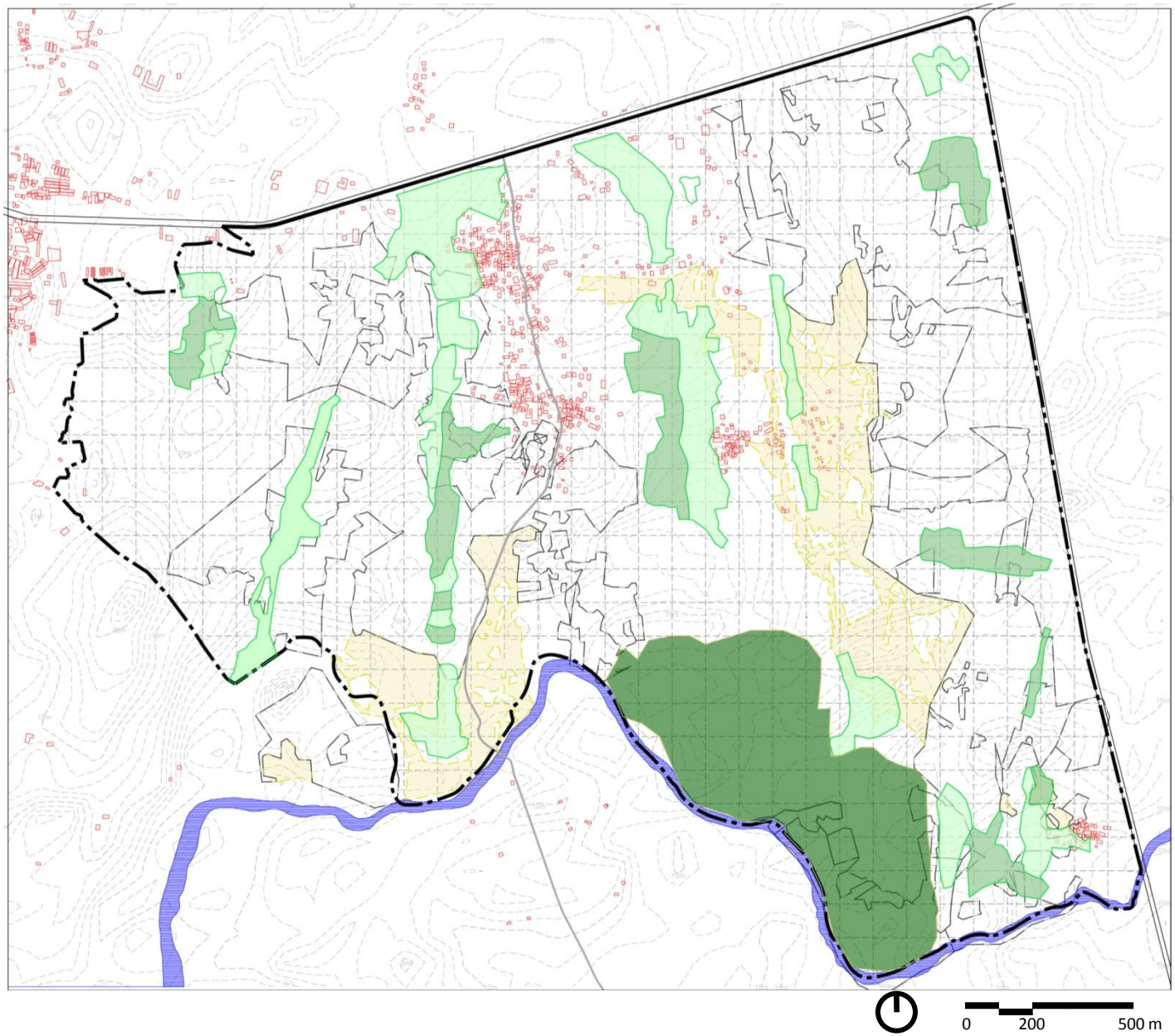


Must be retained

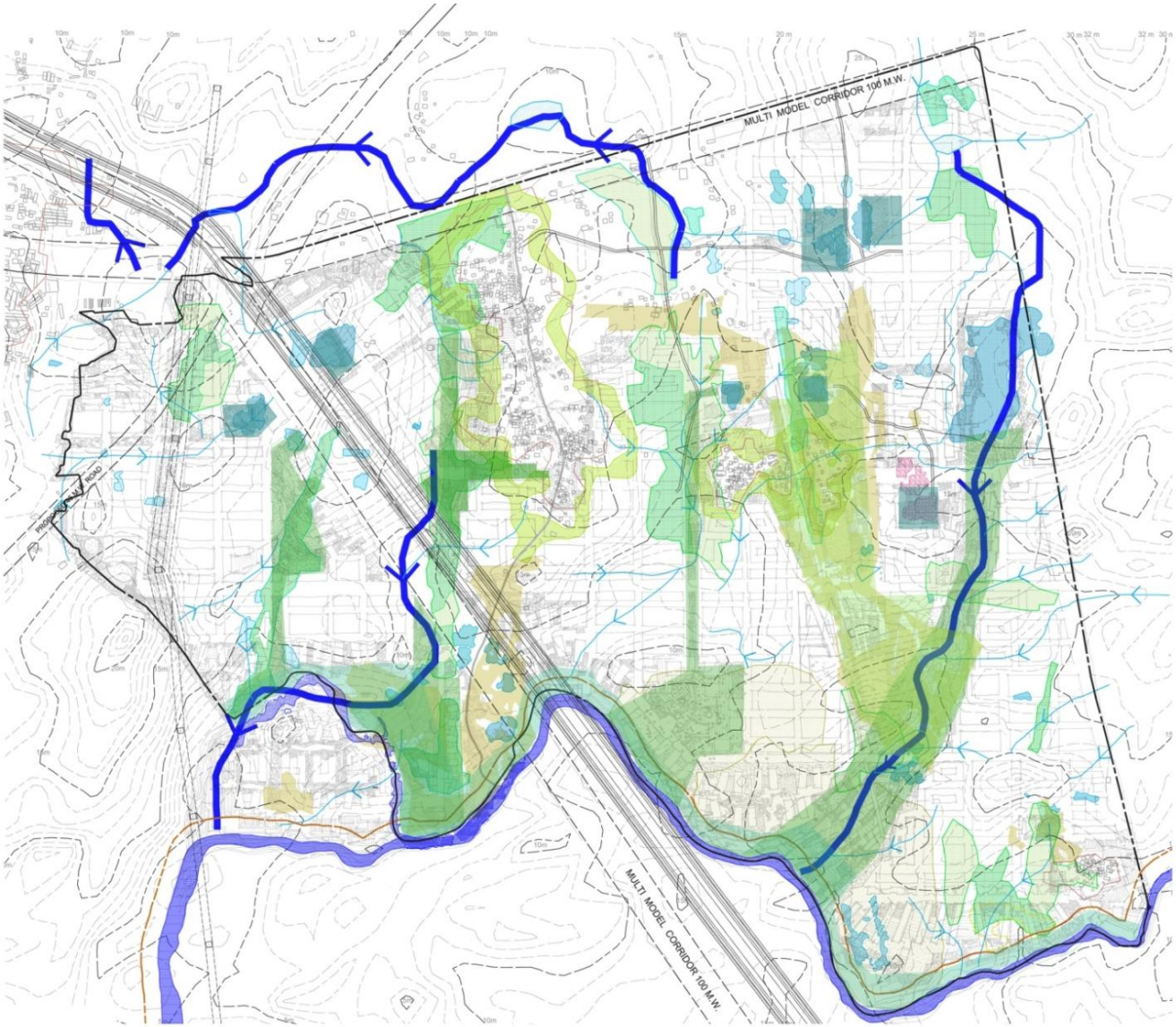
May be retained

Needs to be examined in detail. All large trees to be retained

Trees **Analysis**



Agriculture and grasses **Analysis**



- Site boundary
- Village road
- Major water movement line
- Minor water movement line
- Water bodies must be retained
- Water bodies may be retained
- Water bodies need to be retained
- Trees must be retained
- Trees to be examined in detail
- Tall grasses
- Agriculture must be retained
- Agriculture maybe partially retained
- Buffer along existing settlement
- Gauchar land
- Sarkari padit land
- Stone quarry
- Power lines
- Consolidated green finger
- River edge
- Retained quarry/water body
- Gauchar maidan

Landscape parameters **Consolidated framework**

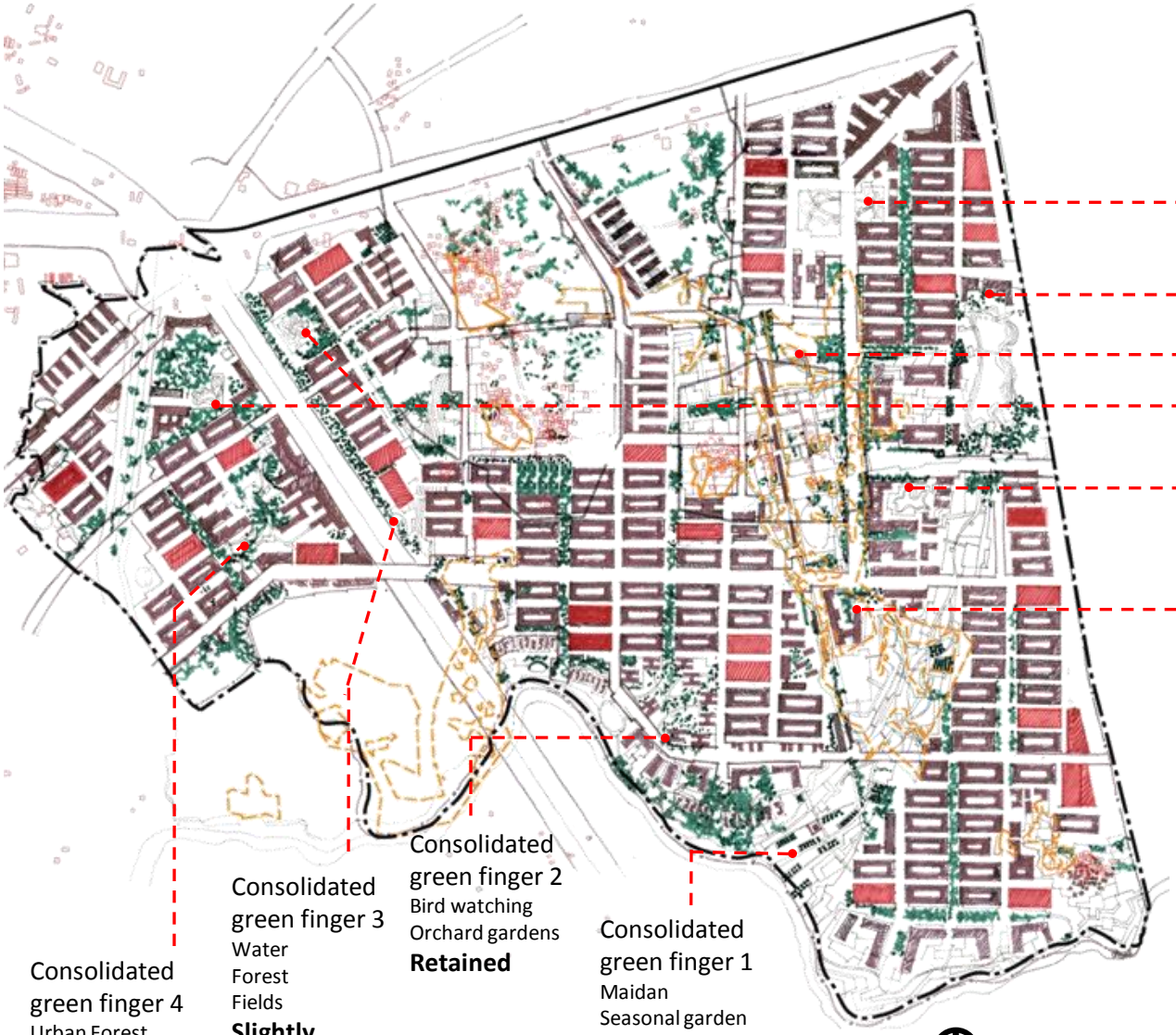


Landscape parameters in plan dated 7th December 2011

Conceptual landscape plan



Current master plan



Quarry park (**Retained as water reservoir)**

The big lake (**Retained)**

Urban tanks (**Retained)**

Civic plaza (**Retained)**

Stone park (**Retained)**

Gauchar maidan (**Retained)**
Palava maidan
Art plaza
Fields

Consolidated green finger 4
Urban Forest
Slightly modified

Consolidated green finger 3
Water
Forest
Fields
Slightly modified

Consolidated green finger 2
Bird watching
Orchard gardens
Retained

Consolidated green finger 1
Maidan
Seasonal garden
Patchwork streams
Grasslands
Paddy gardens
Retained

0 200 500 m

Landscape parameters modified in plan dated 21st March 2012

Current master plan

