

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL**WESTERN ZONE BENCH, PUNE, AT PUNE****ORIGINAL APPLICATION NO. 03 OF 2020**Devraj Bhatia and another ... **APPLICANT**

V/s

Pune Municipal Corporation

and others ... **RESPONDENTS****INDEX**

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PUNE

DATE 12/01/2020



ADVOCATE FOR APPLICANT

Commissioner, Pune Municipal Corporation (PMC), Pune and the MPCB and directed it to submit a report.

3. The Committee submitted its report before this Hon'ble Tribunal, and after perusal of the said report dated 23rd November 2020, the Applicants would like to raise objections to the said Report.
4. The Applicants submit that a road of length 130 meters has been constructed on the streambed and the road is passing between Survey No.457, Shivajinagar, Pune and the stream. The stream originates about 1.5 km away from the base of Bhamburda Hill Range. The stream is on the South of the Road and flows from West to East. Survey No.457, Shivajinagar, Pune, where six buildings are constructed, is on the North side of the road. The layout of the area where the road is constructed can be seen from the relevant portion of Existing Land Usage (ELU) Map prepared by the PMC. Copy of the ELU Map, relevant portion of the ELU map and a satellite view of the encroached stream are annexed hereto and collectively marked as **ANNEXURE A-1**.

5. The Respondent No.1 has prepared the existing land use (ELU) map for the Pune City in and around 2008 and 2009. ELU Maps are the base maps on which the Development Plan maps are prepared. In the said map, the existing land use clearly shows that, there is a Nala, which passes through the southern boundary of land, Survey No.457, Shivajinagar, Pune. No road is to be seen in the ELU. The ELU is annexed. In fact, in its own report titled 'Draft DP 2007-2027 ELU' the Respondent No.1, has acknowledged several times the importance of the Nalas as storm water corridors and that these should be free from encroachments.
6. The Applicants submit that after preparation of the ELU, the Respondent No.1 prepared the proposed land use (PLU) maps. The map represented the land use proposed by the Respondent No.1 at the particular survey number or relevant portion of the land. In the said PLU also, the left bank of the stream is up to the southern boundary of the land in Survey No.457, Shivajinagar, Pune. It clearly shows that no road was proposed between stream and Survey No.457, Shivajinagar, Pune when the Respondent No.1 prepared the Proposed Land Use Maps. Copy of the relevant

portions of the PLU map is annexed hereto and marked as **ANNEXURE –A-2.**

7. The Applicants submit that the Respondent No.1 thereafter published its Development Plan, which was finalized by the Govt. of Maharashtra and the same was issued on or around 5th January 2017. In the final Development Plan as well, the left bank of the stream is up to the southern boundary of Survey No.457, Shivajinagar, Pune as seen by the blue boundaries of the Nala. Copy of the relevant portion of the Development Plan is annexed hereto and marked as **ANNEXURE – A-3.**
8. The Applicants submit that a survey of the Water Bodies was conducted by M/s PriMove Consultants Pvt. Ltd., for and on behalf of the Respondent No.1 in and around 2005-2010. Contours around all streams were surveyed and were shown on the maps submitted by PriMove to the Respondent No.1. The stream is shown in the PriMove map and as per the contours, there is no road along the left bank of the stream, i.e. on the North side of the stream adjoining Applicant's property. Copy of the relevant

portion of survey map of the stream at the location under consideration is annexed hereto and marked as ANNEXURE A-4.

9. The Applicants submit that on the basis of the submissions made hereinabove, the undisputed facts are narrated as under: -

a. There was no road between the stream and the survey No. 457, i.e. the stream was flowing up to the southern boundary of survey No. 457.

b. There was no road **proposed** on the streambed, i.e. between the stream and the survey No. 457, as can be seen in the PLU and Final Development Map of the area, prepared by the Respondent No. 1 and submitted to the Government of Maharashtra.

10. After perusal of the report submitted by the Committee, the Applicants have observed many inaccuracies in the report. In addition, no survey reports or maps have been provided with the report filed before this Hon'ble Tribunal. Be that as it may, the reference to the existing land use, proposed land use and final development plan, is made by the Applicants as it clearly indicates that, the road has been built on the bed of the stream in clear

violation of sanctioned Development Plan by the Respondent No.1. This is having very deleterious environmental effects.

11. The Applicants submit that the catchment basin of the said stream is very steep and catchment area is about 577000 sq.mtrs. This can be seen from the terrain map of the hill range. The source of the stream is hardly 1.5 km from the said location. Due to the topography, huge quantities of water are carried by the said stream in monsoon. Copy of the terrain map is annexed hereto and marked as **ANNEXURE – A-5**.

12. The Applicants submit that, according to the TERI Report, the rainfall in Pune region is going to rise by an average of 25.7% in the 2030s (Page 28) with increased frequency of extreme rainfall by 14-18 % (Page 13). TERI report has in fact recommended increasing storm-water drainage capacity to accommodate 15% increase in flood magnitude (see Page 20 of TERI Report). In the light of the TERI Report, it is crucial that, the original water carrying capacity of the natural stream is not impeded by way of any anthropogenic interventions. Copy of the relevant portions of

the TERI report are annexed hereto and marked as **ANNEXURE – A-6.**

13. The Applicants submit that if the stream is impeded, as it is in this case, it will certainly lead to flash floods in the fully developed residential localities. In fact, the residence of the Municipal Commissioner of the Respondent No. 1, is located 300 metres downstream from the property of the Applicant No.1 and 100 metres away from the same stream. In one of the monsoons, this residence was heavily flooded because of water logging and same stream overflowing its banks and there was tremendous loss to the property as well as injury on account of the said flood. In fact, the then Municipal Commissioner stated that *'the municipal officials, builders and common people should respect the Development Plan of the city in which the course of the nallahs is marked'*. Despite this incident, the PMC has continued encroaching the same stream up to present date. In the present case, the Respondent No.1 has not only violated the Development Plan but has also carried on the destruction of the environment. Copy of the newspaper cutting highlighting the said incident is annexed hereto and marked as **ANNEXURE A-7.**

14. The Applicants submit that it is also pertinent to note that, the natural slope from Survey No.457, Shivajinagar, Pune is towards the stream, which now stands obstructed due to the construction of the said road. Copy of the diagram of the cross section of this area is annexed hereto and marked as ANNEXURE A-8.

15. The Applicants further submit that it appears that, the construction of the road is causing pluvial floods as it is causing obstruction to the surface storm-water runoff. The constriction of the natural stream may also cause fluvial flooding. The photographs showing the flooding are already placed on record and are at ANNEXURE – A-7 pg. 36 of the Original Application.

16. The Applicants further submit that the concretisation of the area and road encompasses a total encroached area of approximately 2200 square meters. If one considers the concretisation of the agricultural canal, the total concretised and encroached area is in fact approximately 3600 square meters. As per the mathematical calculations, approximately 1.8 million litres of water has run off during each of the last two monsoons due to the concretisation and a large quantity of the same could have percolated as groundwater.

In fact, if we consider the concretisation of the agricultural canal, the total run off is more than 3 million litres of water in each monsoon. This also flows off and can cause downstream floods. The road and concretisation has blocked lakhs of litres of groundwater recharge. In addition, the concretisation of the natural and perennial stream is preventing the year around replenishment of ground water. India is a water stressed country and with increasing population, it is very essential to preserve and protect our natural water bodies. This environmental destruction should not be condoned. The concretisation has also caused a tremendous loss of green cover in the area. Photos to show this have been submitted as part of the original application.

17. The Applicants submit that there is high noise and air pollution due to the illegal road. In the past all the properties on survey Nr. 457, Shivajinagar, Pune have had primary access via the road on the north side, as the road under dispute on the south side did not exist. Removal of the road will thus not block access for any property or any persons even in areas away from the road. The road has no cause for existence.

18. The Applicants would like to deal with the para-wise response to the report filed by the Respondent No.1: -

(a) In reply to the contents of Para 3 of the Report, it is submitted that, the property of Applicant No.1 was developed in the year 1965 and at that time the stream was flowing adjoining to the boundary of the property. The streambed had lot of trees and bushes and in the monsoon, the stream water used to come right up to the boundary of the property.

(b) In Para 4 of the Committee Report, it is claimed in the report that *'neither PMC has procured any new material from outside for filling the road nor the level of the original ground level is increased'*. It is submitted that the statement is completely incorrect and deliberately misleading. The streambed has been filled in up to 1.6 meters above the original ground level and a concrete road constructed. The Committee Report itself admits in Para 10 of the report that the level of the Applicants' Property is 0.83 metres above the stream lining level. The natural slope of the ground is towards the stream. This can be seen from the cross-section of the area. The constructed road is

much higher than the ground level of the property of Applicants. It is inconceivable that a road much higher than the ground level of the Applicant No.1's property and between the property and the stream can be constructed without filling in the original streambed and without raising the original ground level. Photos of the Applicant No.1's property, the road and the stream with dimensions clearly show the raising of the ground level and are annexed hereto and collectively marked as **ANNEXURE A-9**. The photos clearly prove that the statement in the Para 4 of the report that the streambed has not been filled in is completely false and misleading.

(c) Para 5 of the Committee Report claims '*no any changes made in the width of the bridge and width of the stream.*' In reply to the contents of Para 5 of the Report, it is submitted that, the statement regarding width of stream is incorrect. The Stream has been encroached both on the upstream side as well as on the South side of the Applicant No.1s' property. The width has been drastically reduced as well as the original streambed has been filled in. The irrigation canal mentioned in the Para 5 of the report has also been completely filled in and concretised.

By observing the ELU and other maps prepared by none other than the Respondent Nr. 1, the stream should have a varying width of at least 17m, whereas as per the Joint Report the stream is having almost constant width of about 10m. As per the final development plan map also, the stream (Nala) width marked with the blue boundaries should be between 17m and 19m. This clearly indicates that changes have been made to the stream width, after construction of a road on streambed. Thus the statement in the Para 5 of the Report that no changes are made in the width of the stream is incorrect and misleading.

(d) In reply to the contents of Para 6 of the Report which mentions the agricultural canal, it is submitted that, the agricultural canal mentioned in the report barely exists anymore as the PMC has completely concretised and filled it in. In any case, the canal is not the primary issue here under consideration. The concretised road is the main issue raised by the Applicants here. The issue of foul smell, garbage and pigs persists until today. The Respondent No.1 has just tried to hide the issue, by construction of a wall and lining the stream instead of trying to clean up the area and restore natural environment and eco-

system of the stream. The photographs to show the same, taken recently, are annexed herewith and marked collectively as **ANNEXURE-A-10**. Moreover, the Applicants have never alleged that, the water from the stream has entered its property. The report has not addressed the main concern that the construction of the road has changed the natural drainage pattern of the area.

(e) In reply to the contents of Para 7 of the Report which describe the reason for the flooding, it is submitted that, in the Applicant's opinion, the main reason for water accumulation on the north side of the stream is that, the constructed road under dispute blocks the natural flow of rainwater runoff from the properties on the north side. Many of the properties on the north side of the road are affected by the flooding due to the change in the natural flow of the area. This flooding in all adjoining properties can be seen in the photos submitted in the original application.

(f) In reply to the contents of Para 9 of the Report which questions the reason for the flooding by referring to the properties on the

south side of the stream, it is submitted that, the statement is false and denied by the Applicants. The members of the Committee are trying to misguide and hide the facts from this Hon'ble Tribunal. A simple observation of the site shows that the south side properties on Survey No.363, Shivajinagar, Pune adjoining the stream are draining their excess and accumulated storm water directly into the stream. This is no longer possible for properties on the north side, as the road has encroached the streambed and blocked the natural slope.

(g) In reply to the contents of Para 10 of the Report, it is submitted that, the Applicants are neither interested in having access to the property from the road, nor they want to have any utility service connections from the road in question. The main access to all properties is from the northern side. The Applicants wish for the demolition of the road and restoration of natural environment.

(h) In reply to the contents of Para 11 of the Report, it is submitted that, the Applicants believe, that by restoring the natural storm water drainage (in this case the stream), expenses occurring on

constructing another storm-water drainage system can be saved. The removal of the road and restoration of the stream will solve the issues. The Applicants only wish and pray for the restoration of the ecology of the area.

- (i) In reply to contents of Para 12, its submitted that, the Applicants have presented extensive proof in the points above, showing the reason of flooding is a pluvial flood, which is occurring primarily due to the road encroaching the streambed and filling in of stream bed to construct the road. It is the opinion of the Applicants that the reason for the flooding given in the Joint Report is not borne out completely by the facts on the ground.
- (j) In reply to contents of Para 13, it is submitted, that the flooding occurs every monsoon and the water is entering the houses themselves. In fact, if as per the TERI report the intensity of rainfall and cloudburst increases in future, the flooding will increase and there is threat to humans, property and environment. Also, every monsoon there is loss of lakhs of litres of groundwater due to road encroaching streambed. The

increased runoff can also result in higher incidence of floods downstream as well. As it is an annual feature, every year it is a fresh cause of action. The Precautionary Principle should be applied to protect and prevent environment and ecology. The ill effects of the road were not apparent immediately.

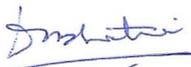
19. The joint report has completely ignored the fact that the road has been constructed by the Respondent No.1 in violation of the Development Plan of the city. The joint report has completely ignored the occurrence of pluvial floods and the possibility of fluvial floods due to the impediment of a natural and perennial stream despite past and present evidence of the same. The joint report is ignoring the own guidelines and reports of the Respondent No.1 which require the removal of all concrete encroachments on streambeds. The joint report has completely ignored the environmental degradation and loss of ground water recharge due to the construction of the road.

The joint report has **many misleading and incorrect** statements. The Applicants have highlighted the inaccuracies in the rejoinder to the report and have provided extensive proof of the inaccuracy of the statements in the form of maps and photographs. The Applicants

therefore pray that appropriate action may be initiated against the Respondents and the Committee members.

The Applicants humbly pray that the Hon'ble Tribunal be pleased to direct the Respondent No.1 to remove the road and restore the ecology of the natural stream to the original and imposes a penalty on Respondent 1 to mitigate the damages caused to the environment.

PUNE
DATE 12/01/2021


APPLICANT No.1


ADVOCATE FOR THE APPLICANTS



BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
WESTERN ZONE BENCH, PUNE, AT PUNE

ORIGINAL APPLICATION NO. 03/2020

Devraj Bhatia and another ... **APPLICANT**

V/s

Pune Municipal Corporation
 and other ... **RESPONDENTS**

A F F I D A V I T

MAY IT PLEASE THE HON'BLE TRIBUNAL

I, Devraj Bhatia, Aged : 70 years, Occu.: Retired, having address at Bhatia Sadan,1039/4,Gokhale Road, Pune – 411 016 do hereby state on solemn affirmation as under :-

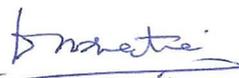
1. I am the Applicant No.1 and I have gone through the Reply to the report and Annexures thereto being filed today. I find that the contents therein are true and correct to the best of my knowledge and belief and which may be treated as part and parcel of the present affidavit.

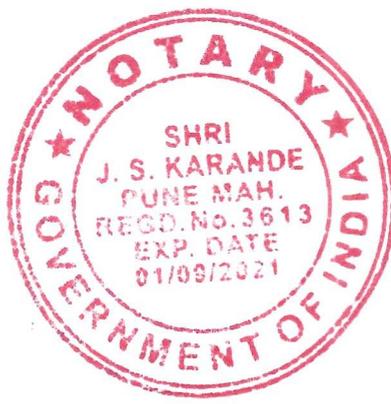
WHATEVER STATED ABOVE is true and correct to the best of my knowledge and belief.

In witness whereof I have signed hereunder at Pune on this
12th day of January 2021.

Identified by


Advocate


Mr. Devraj Bhatia
Applicant No.1

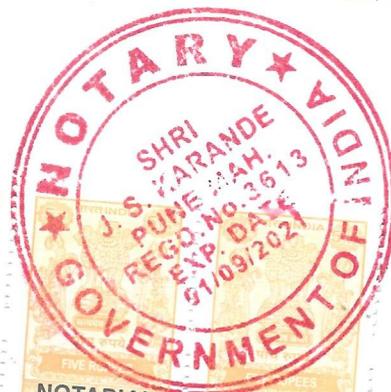


BEFORE ME

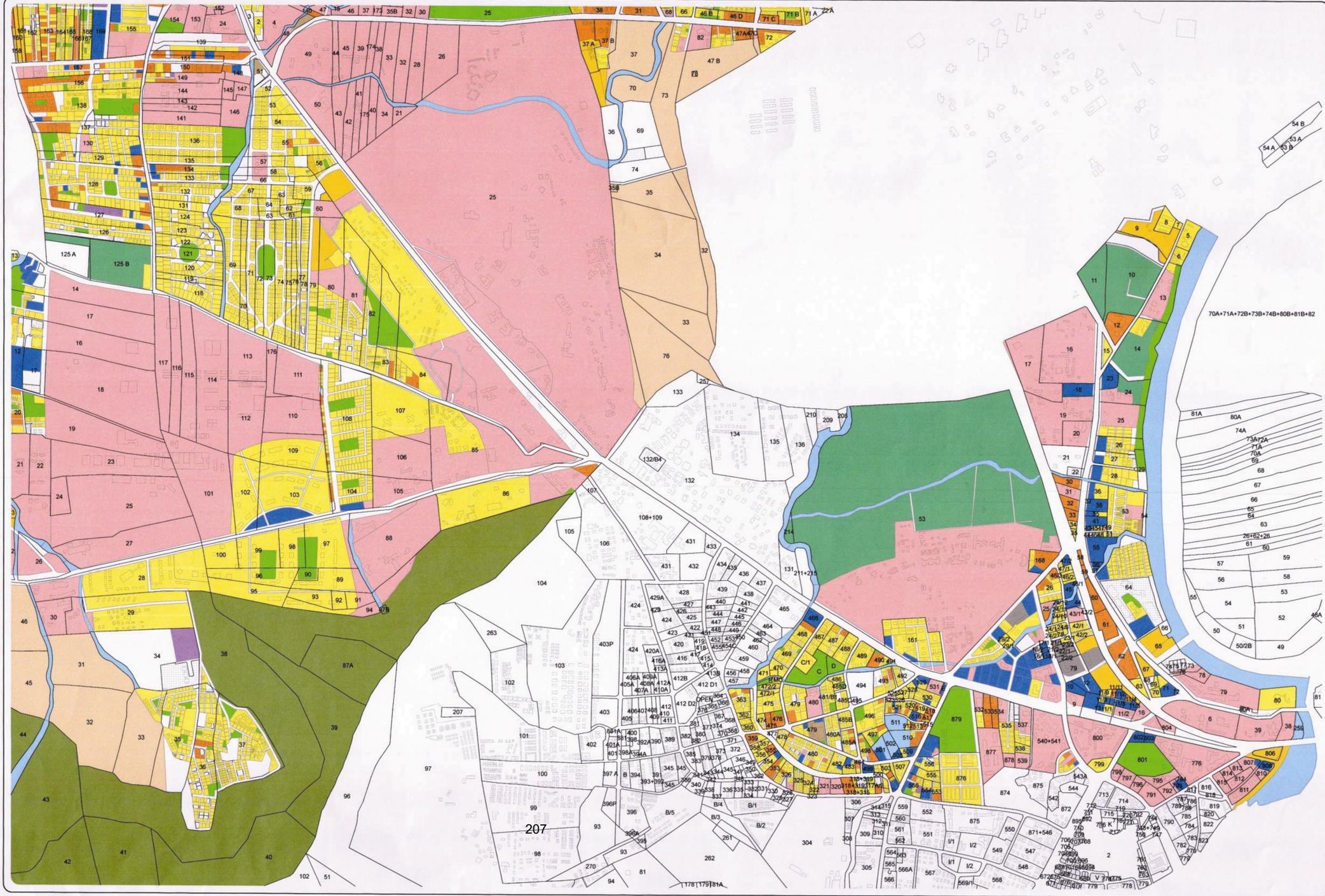

J. S. KARANDE
B.A. (Hons.) LL.B.
ADVOCATE & NOTARY
GOVT. OF INDIA, PUNE

12 JAN 2021

NOTED AND REGISTERED
AT SL No. 38/2021



EXISTING LAND USE MAP FOR SECTOR IV



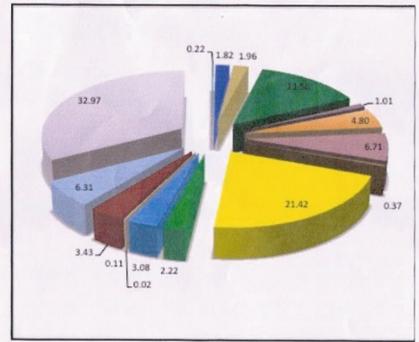
Legend

- Building
- Survey_Boundary
- FinalPlot

LAND USE

- AGRICULTURE
- COMMERCIAL
- DEFENSE
- HILL TOP HILL SLOPE
- INDUSTRIAL
- MIXED LAND USE
- PUBLIC SEMI-PUBLIC
- PUBLIC UTILITY
- RESIDENTIAL
- RECREATIONAL
- SLUM
- TRANSPORT AND COMMUNICATION
- UNDER CONSTRUCTION
- VACANT LAND
- WATER BODY

NORTH
SCALE: 1:10,000



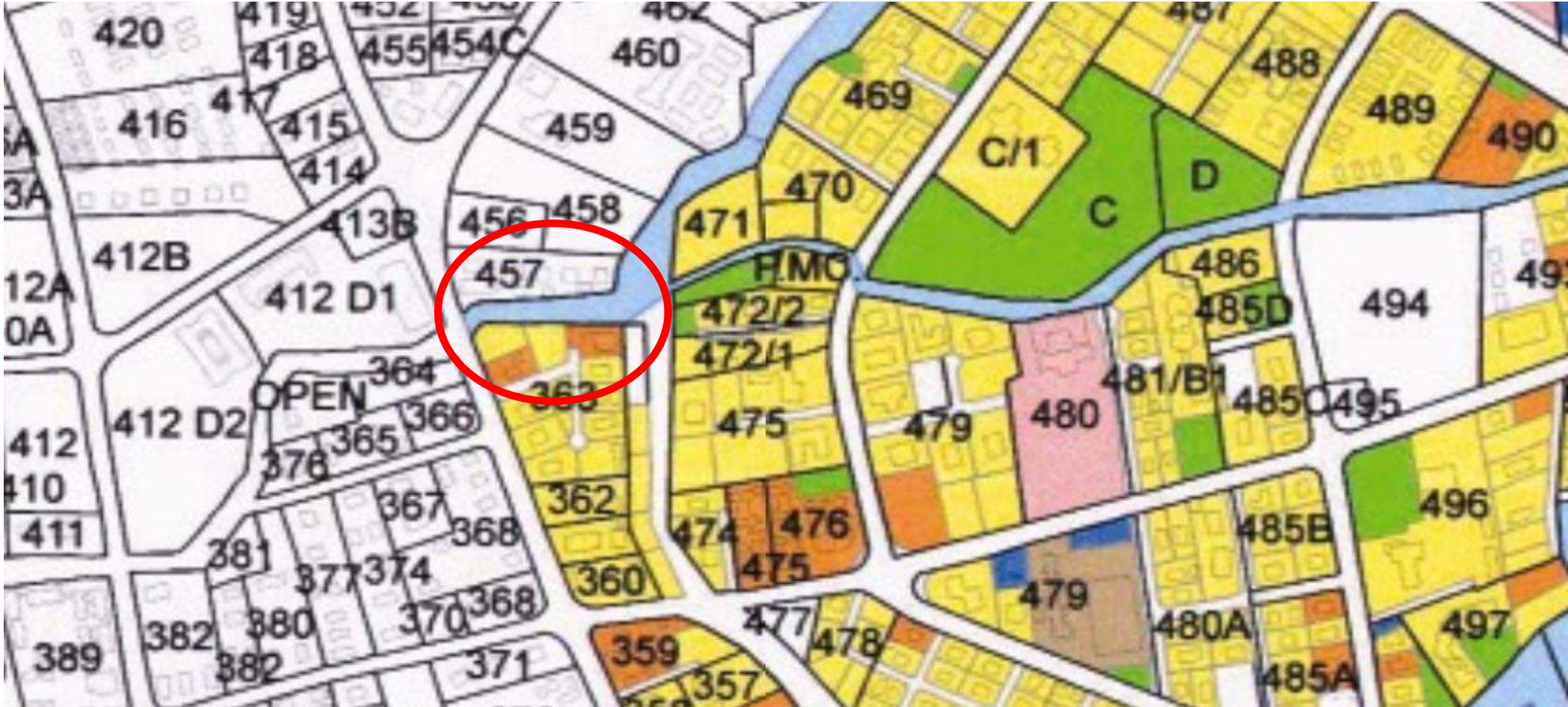
EXISTING LAND USE SURVEY DETAILS SECTOR IV			
ZONE	PERCENTAGE	ZONE	PERCENTAGE
Agriculture(A)	0.20	Residential(R)	21.42
Commercial(C)	1.82	Recreational Spaces(RS)	2.22
Defence(D)	1.96	Slum(SL)	3.08
Hill slope(HL)	13.56	Transport & Comm(TC)	0.02
Industrial(I)	1.01	Under Construction(UC)	0.11
Mix Land use(ML)	4.80	Vacant (VL)	3.43
Public-Semi Public(PSP)	6.71	Water bodies (WB)	6.31
Public Utilities(PU)	0.37	ROADS (RD)	32.97

TOWN PLANNING OFFICER & CITY ENGINEER PUNE MUNICIPAL CORPORATION
MUNICIPAL COMMISSIONER PUNE MUNICIPAL CORPORATION

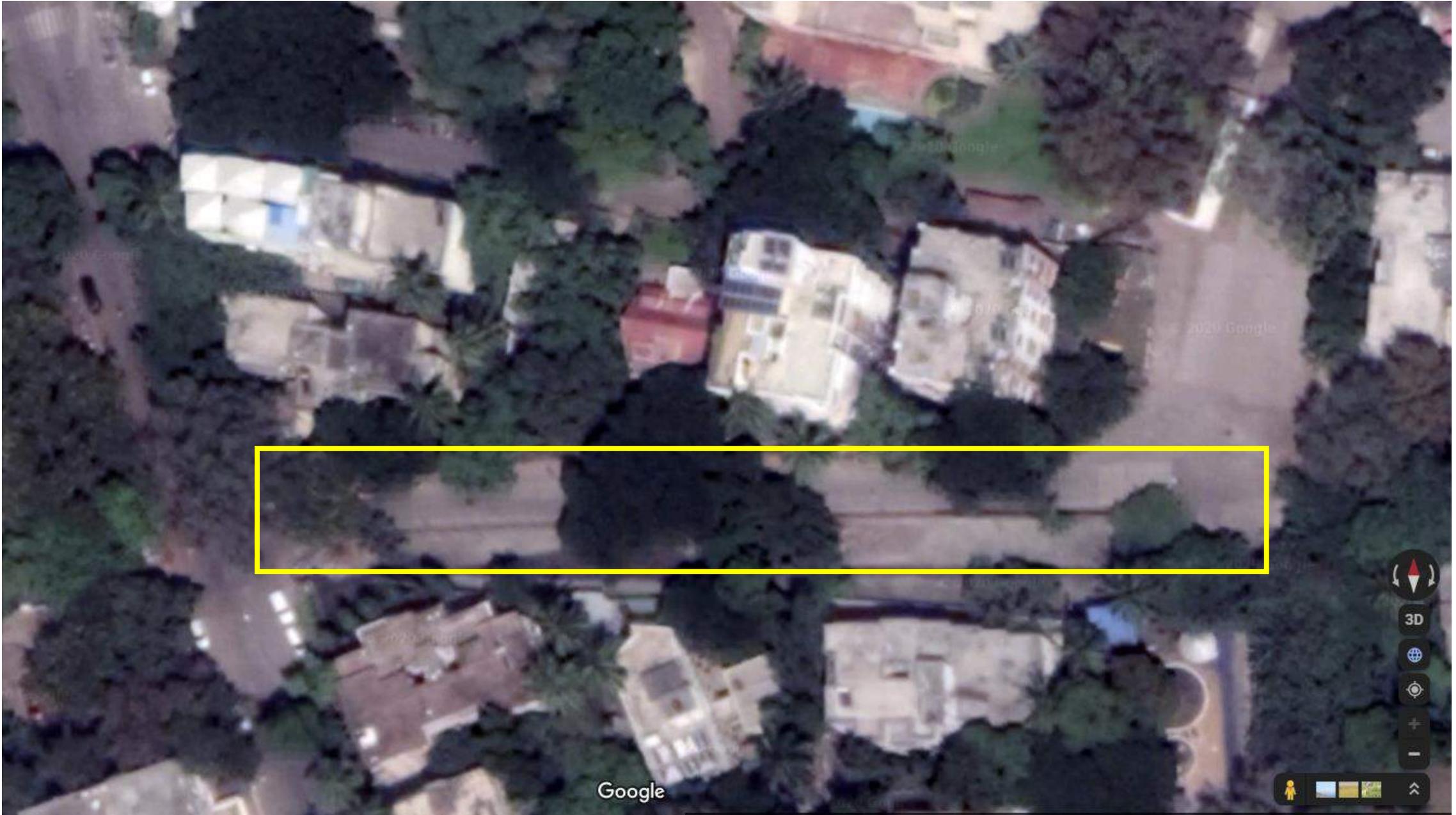
EXISTING LAND USE SURVEY MAP FOR PROPOSED DEVELOPMENT PLAN (2007-2027) FOR OLD LIMITS OF PUNE CITY

Annexure A-1 (Colly)

Zoom of Existing Land Use Map for Proposed Development Plan (Affected Area Circled)

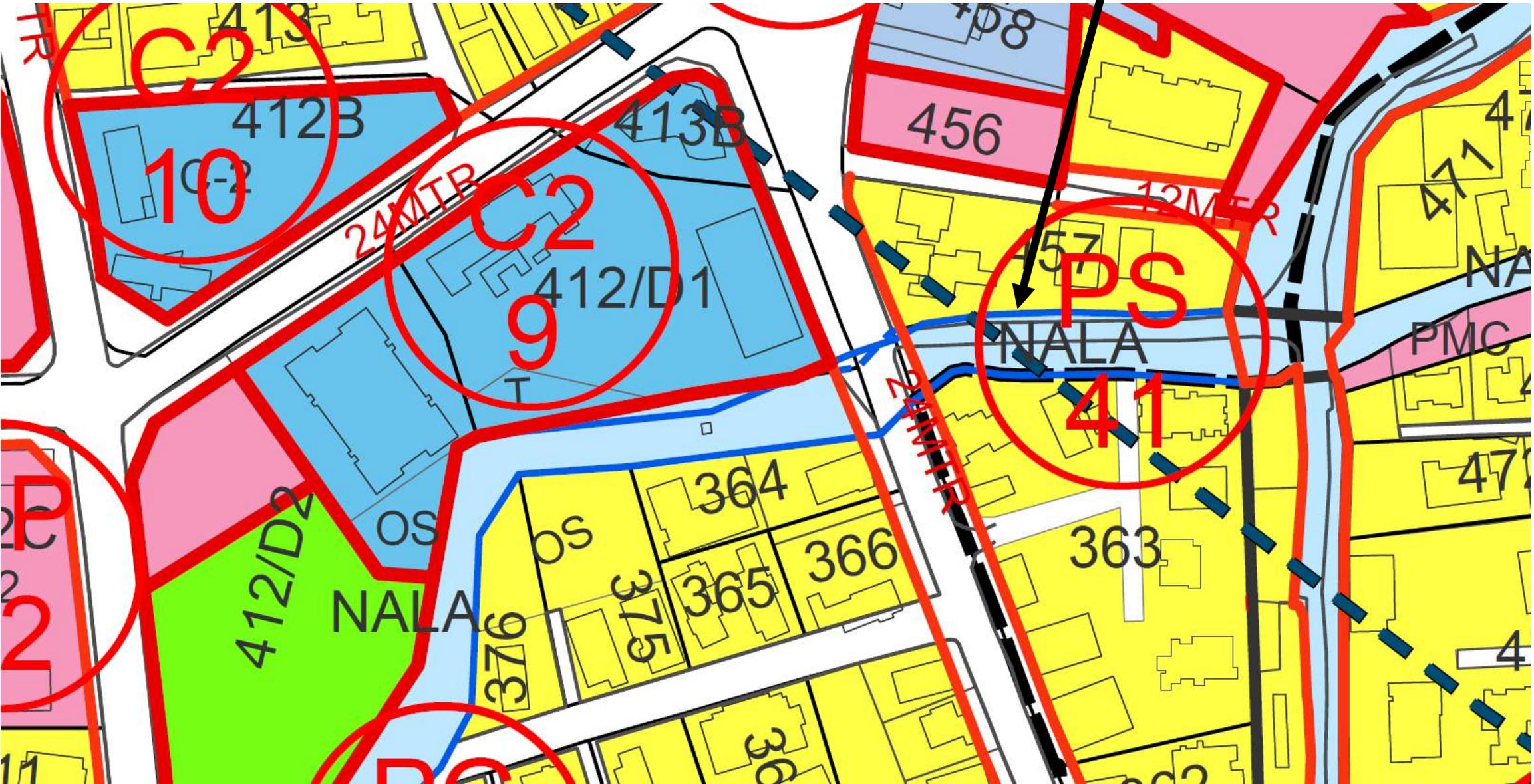


Satellite view of encroached stream

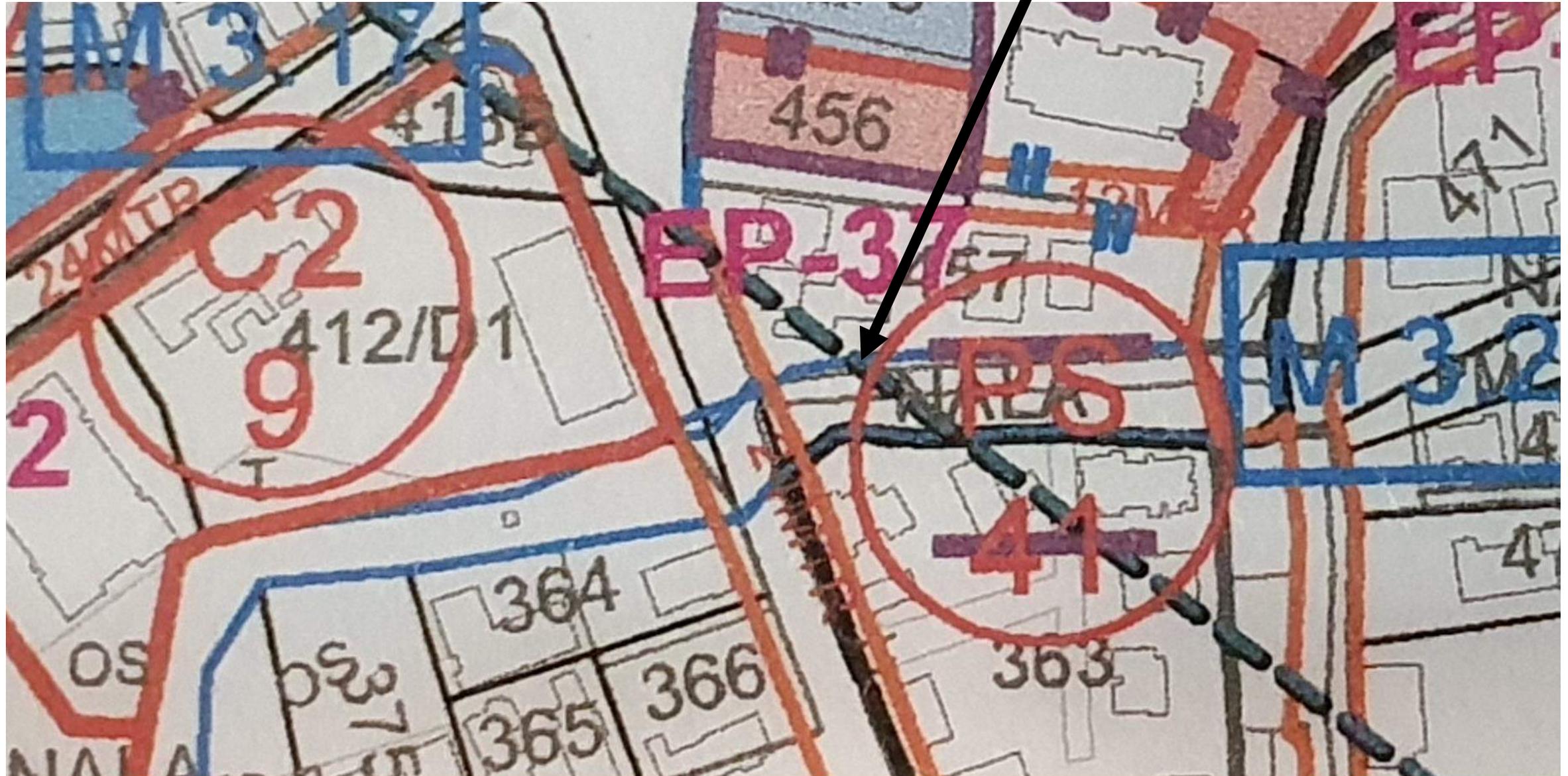


Annexure A-2

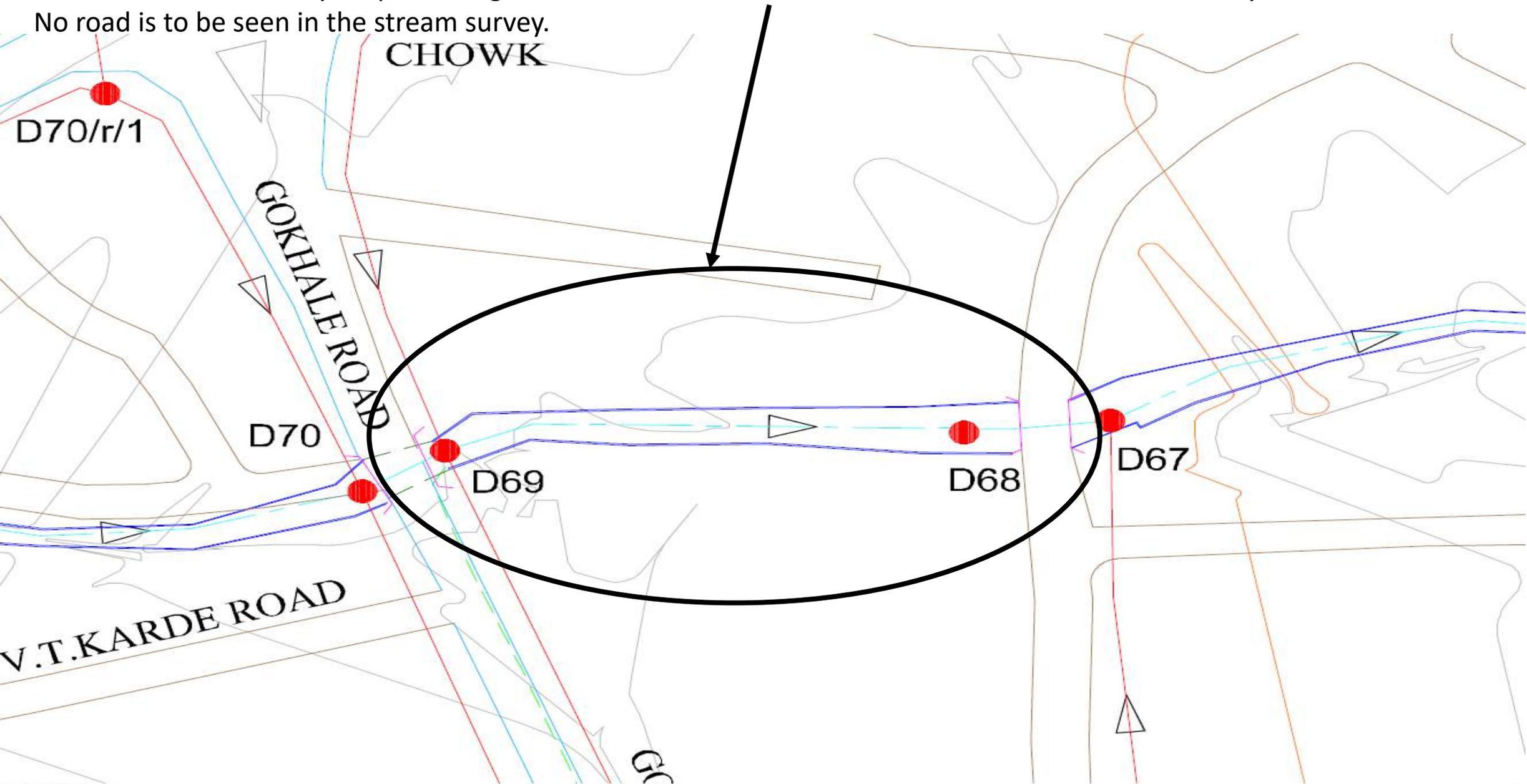
Zoom of Proposed Land Use Map showing the stream in blue marked as NALA. Note (arrow) the left bank of NALA touches south boundary of Survey Number 457



Zoom of Final Development Plan Showing the stream marked as NALA. Note (Arrow) the left bank of NALA touches south boundary of Survey Number 457

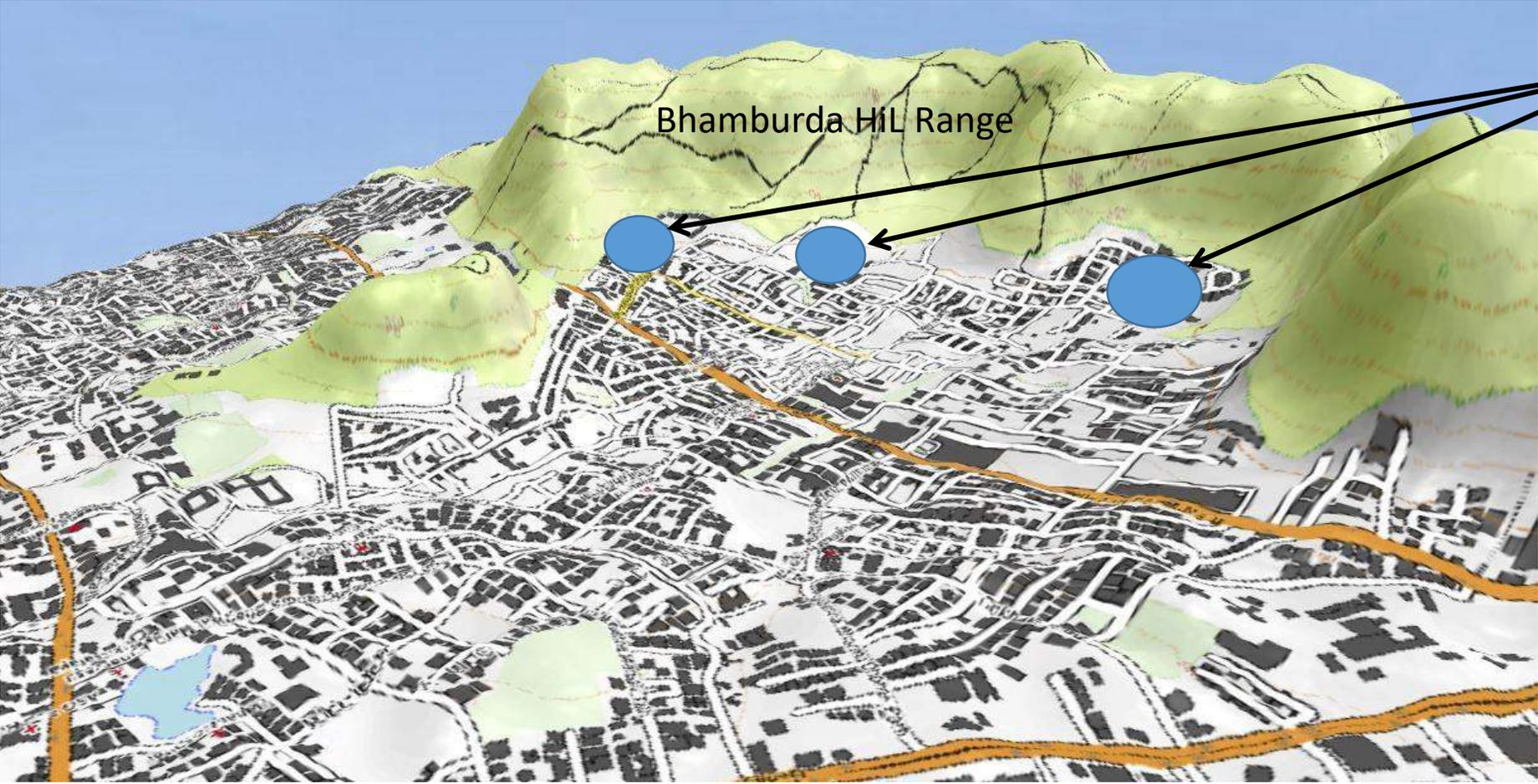


Zoom of PriMove Survey Map Showing the stream. Circled area shows area of stream south of Survey No. 457.
No road is to be seen in the stream survey.



Annexure A-5

Terrain map of the Hills at the origin of the stream.

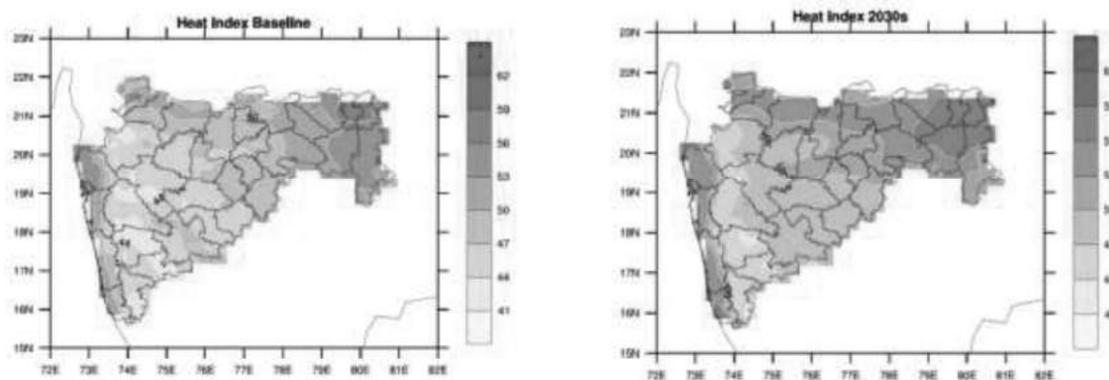


Approximate origin of several streams all merging into the Nala

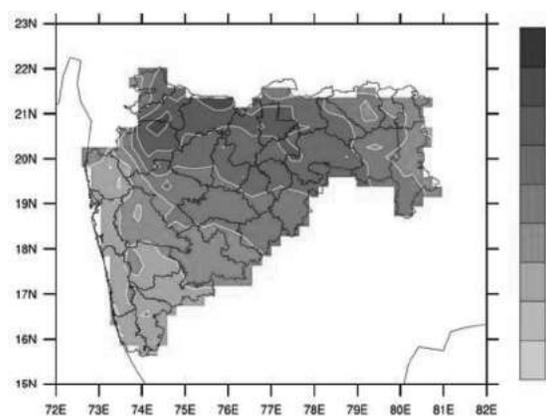
Assessing Climate Change Vulnerability and Adaptation Strategies for Maharashtra: Maharashtra State Adaptation Action Plan on Climate Change (MSAAPC)

Prepared for
Department of Environment, Government
of Maharashtra

Submitted by
The Energy and Resources Institute
(TERI)

Figure 4. Projected increase in heat index in 2030s relative to baseline (in degree Celcius)

A warmer atmosphere has a higher capacity to hold water. This is likely to produce more intense rainfall events with longer dry or low rainfall spells between these events. Figure 5 shows that extreme rainfall is projected to increase in all regions with greater increases in the northern parts of the state (Aurangabad and northern regions of Nashik division)⁵.

Figure 5. Increase in extreme rainfall in 2030s relative to baseline (in %)

Projected percentage increase in extreme rainfall in 2030s relative to baseline	Indicative areas
More than 30	Parts of Jalgaon, Dhule and Nashik
26 – 30	Jalgaon, Dhule, Nashik, Akola, and parts of Buldhana and Washim
22 – 26	Amravati, Yavatmal, Hingoli, Jalna, and parts of Aurangabad, Buldhana, Parbhani, Washim, Wardha, Nanded, Nandurbar, and Nashik
18 – 22	Nagpur, Chandrapur, Nanded, Latur, Beed, Ahmednagar, and parts of Parbhani, Gadchiroli, and Nandurbar
14 – 18	Pune, Solapur, Osmanabad, Gondia, Bhandara, and parts of Gadchiroli
10 – 14	Thane, Mumbai, Ratnagiri, Sindhudurg, Kolhapur, Sangli, and Satara

⁵ Extreme rainfall in future is calculated as monsoon rainfall intensity which is greater than 99% of monsoon rainfall intensity in the entire baseline period at each grid point.

- Increase in the number of low rainfall days in south central Maharashtra indicates dry periods in this region which is likely to have an impact on water resources

Key recommendations

- Conservation and renaturalisation of rivers and water bodies
- Enhancement of water storage and groundwater recharge
- Improvement of water use efficiency

Action plan

- Retain and conserve the riparian zones and renaturalize existing wetlands in the state. Enhance native vegetation in these zones and formulate stringent policies to prevent the dumping of debris and waste in these zones.
- Modify the current tree policy to retain the mature trees, mainly around the origin of rivers which can help reduce soil erosion and downstream sedimentation. Hill areas where rivers originate can be declared as eco-sensitive zones and rewilded.
- Maintain the ecological flow in rivers both downstream and upstream of dams (20-30% of lean and non-lean period flows)
- Recharge underground aquifers through artificial recharge methods (such as percolation tank, recharge well, etc) in scientifically demarcated zones, by declaring green belt areas in urban areas, and by using paving materials that allow infiltration in urban areas.
- Prepare and implement action plan to augment water storage capacity in central Maharashtra to effectively harness the projected increase in rainfall for irrigation. Implement measures to conserve soil moisture for winter and summer crops, including improved planning and construction of watershed management structures like percolation tanks and check dams on rivers, tributaries, nalas, and downstream of dams based on sound technical assessment of aquifer conditions.
- Promote efficient use of irrigation water in districts with plantation crops, such as Aurangabad, Amrawati, Bhandara, Nagpur, Nasik and Jalgaon, through continued subsidies for drip and sprinkler irrigation systems and farm ponds, combined with extensive awareness campaigns for smaller and less educated farmers.
- Mandate water recycling and reuse by industries and utilities, and encourage early adoption through tax concessions. Also mandate regular water audits by industries and utilities and raise the prices for fresh surface water. As a supplementary measure to reduce the costs of compliance, provide incentives to domestic wastewater treatment equipment manufacturers.
- Make rainwater harvesting mandatory in new and existing structures in all million-plus population cities of Maharashtra. Facilitate compliance by making information about contractors and technologies available in a centralized database, undertaking a demonstration project in each ward, and providing property tax incentives.
- Mandate treatment and reuse of sewage water for gardening or flushing
- Augment stormwater drainage infrastructure in major cities of Maharashtra to accommodate a 15% increase in flood magnitude due to climate change.

Appendix 1. District-wise climate change projections

District	Projected increase in monsoon rainfall (% increase from baseline)					
	2030s		2050s		2070s	
	Average	Range	Average	Range	Average	Range
Hingoli	22.9	17.5-27.5	26.3	22.5-30	28.16	25-32.5
Buldana	26.23	22.5-30	28.74	25-32.5	21.88	17.5-30
Thane	25.16	20-30	24.71	20-30	27.32	20-32.5
Gondia	17.46	15-20	18.76	15-20	25.06	22.5-27.5
Nandurbar	33.83	27.5-37.5	31.43	27.5-37.5	21.01	15-30
Solapur	15.39	10-20	15.41	10-20	25.03	17.5-32.5
Sindhudurg	12.81	7.5-15	10.98	7.5-15	15.4	10-25
Kolhapur	15.30	10-20	15.05	7.5-20	22.7	15-30
Ratnagiri	15.42	7.5-20	15.26	7.5-20	18.7	10-27.5
Sangli	12.97	12.5-20	12.04	10-22.5	23.6	17.5-32.5
Solapur	14.25	10-17.5	13.77	7.5-20	22.8	17.5-30
Satara	17.90	12.5-22.5	16.25	12.5-22.5	26.1	22.5-35
Raigad	20.10	17.5-25	19.62	15-22.5	20	17.5-25
Pune	25.76	10-32.5	25.03	10-30	28.7	20-37.5
Osmanabad	19.80	12.5-25	20.16	12.5-27.5	29.9	22.5-37.5
Latur	17.93	15-22.5	21.6	15-25	32.8	27.5-35
Nanded	19.22	12.5-25	23.3	17.5-30	28.4	17.5-30
Beed	22.65	20-30	26.2	17.5-30	34	30-40
Ahmednagar	22.93	15-32.5	23.85	15-35	35.15	30-40
Nashik	34.78	25-40	32.92	22.5-40	38.6	30-52.5
Aurangabad	24.95	20-27.5	25.05	20.5-27.5	27.3	20-32.5
Jalna	23.40	20-25	24.1	22.5-27.5	26.98	20-32.5
Parbhani	22.64	15-25	23.5	20-27.5	30.1	27.5-32.5
Dhule	36.70	30-40	33.4	27.5-37.5	24.7	17.5-30
Jalgaon	35.29	25-40	34.9	25-37.5	22.6	17.5-27.5
Yavatmal	22.35	17.5-27.5	26.8	22.5-32.5	20.15	15-27.5
Chandrapur	16.2	12.5-22.5	21.7	17.5-30	17.9	15-25
Gadchiroli	18.15	12.5-22.5	23.4	12.5-30	22.06	20-30
Washim	23.2	22.5-27.5	28.7	25-30	22.7	20-27.5
Akola	26.2	22.5-30	30	27.5-32.5	20.6	20-25
Amravati	21.7	17.5-27.5	26.2	22.5-30	22.4	17.5-25
Wardha	18.1	15-22.5	20.9	20-27.5	18.75	15-25
Nagpur	17.5	15-20	21.89	17.5-22.5	25.1	17.5-27.5
Gadchiroli	20	12.5-22.5	21.4	12.5-30	22.85	20-30
Bhandara	17.6	15-20	20.7	17.5-22.5	22.8	22.5-27.5

Note: The climate model used for this study is designed to model the climate over Maharashtra state and is not specifically designed for district-scale climate projections. The resolution of the model is 25 km x 25 km.

Printed from



9 lakh: That's the bill for PMC Chief's rain-ravaged home

Oct 21, 2010, 01.07 AM IST



The boundary wall was swept away in the flash floods in October



Debris outside PMC Commissioner's house caused by flooding



It is like death looming over Pune. Municipal officers, builders and common people ought to respect the DP.

— **PMC chief Mahesh Zagade on floods occurring due to nullah encroachments**

Here's why the municipal administration really got cracking on the city's deteriorating nullahs. The aftermath of the flash floods in the first week of October left Pune Municipal Commissioner Mahesh Zagade smarting with a leg fracture and his official bungalow in Model Colony in a mess.

The PMC has invited tenders to rebuild the collapsed boundary wall of the bungalow and overall refurbishing. The tender pins the cost at around Rs nine lakh.

The catalyst

Zagade was among several others who were injured as the city witnessed heavy rainfall on October 5 and 6 this year.

Since Zagade's house was flooded in four-feet-deep water, he and his two bodyguards went to open the gate of Chitaranjan Vatika next door.

The Vatika is the garden next to his bungalow, to help the water flow. But Zagade was swept away as a large part of the compound wall surrounding his house collapsed due to the pressure of the flowing water.

He sustained a fracture on one of his legs.

Soon after the incident, the PMC's Standing Committee approved funds of Rs 50 crore to clear up nullahs and tackle water logging in the city.

Zagade's proposal had sought Rs 351 crore to restore nullahs and increase their length and width. He has been stressing the importance of restoring the bed levels of nullahs and channelise water streams, clean manholes and repair sewerage and big chambers.

He had also been demanding the setting up of an inquiry committee to find out how the nullahs of the city were encroached upon.

The tender

The tender notice, a copy of which is with Pune Mirror, states that the estimated cost of refurbishing the commissioner's bungalow will be around Rs 8,84,536.

His home would be renovated over the next two months, the tenders for which were floated on October 15.

The tender document states that the municipal commissioner has the exclusive right to accept, reject or dismiss the bid. However, Zagade was not available for comment despite repeated attempts to contact him.

The flash flood

Between October 5 and 6, the city recorded its highest rainfall in the last 108 years at 181 mm. A large amount of property was destroyed in the city as the low-lying areas of Aundh, Pashan and Deccan were flooded.

Many houses in the adjoining Ramnadi in Pashan were also flooded. At least 10 people lost their lives in this calamity.

Commissionerspeak

Zagade again sought to reiterate the importance of respecting the Development Plan of the city, keeping the nullahs clear to prevent flooding in residential areas.

Talking about the tender, he said, "The damaged wall will be repaired soon."

Speaking on the flooding situation in the city during monsoons, he rapped the PMC officials, saying, "It is like death looming over Pune. PMC officials should respect the DP. Surprisingly, many nullahs are missing in the DP."

Illegal constructions have been allowed to mushroom over the nullahs. Even historically, people in housing societies have always given space for natural nullahs to flow. Now, the situation has worsened.

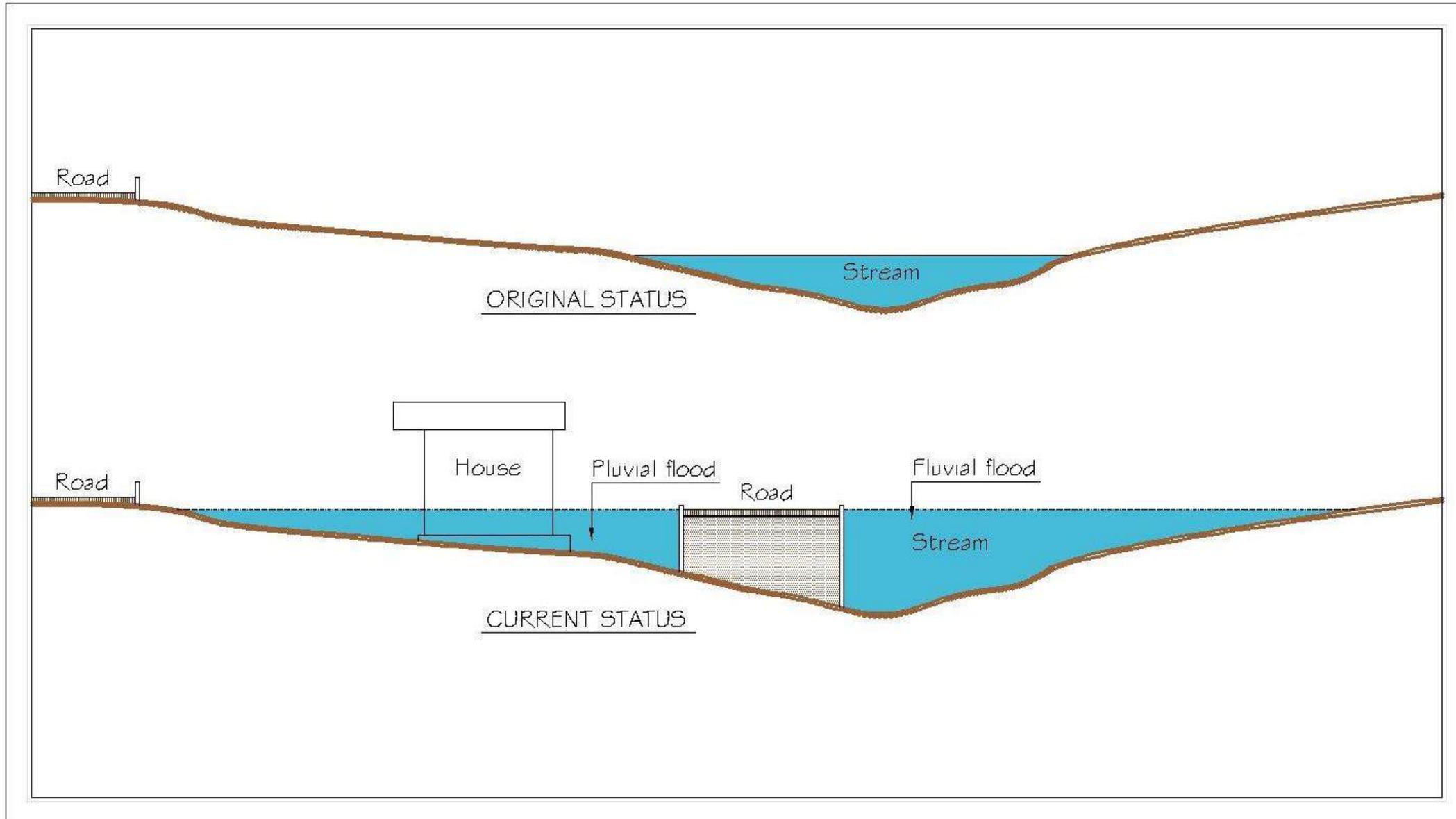
It's high time we respect the natural course of water.”

“The municipal officers, builders and common people should respect the development plan of the city on which the course of the nullahs is marked. They should not obstruct the natural course of water.”

He added that the current situation in the city demands smart planning and execution.

Annexure A-8

Rough Cross-section of the Stream, adjoining properties and effect of encroachment of streambed by road



Photos showing filling of original ground level of the stream bed.
Wall in photo on the left was originally the left bank of the stream

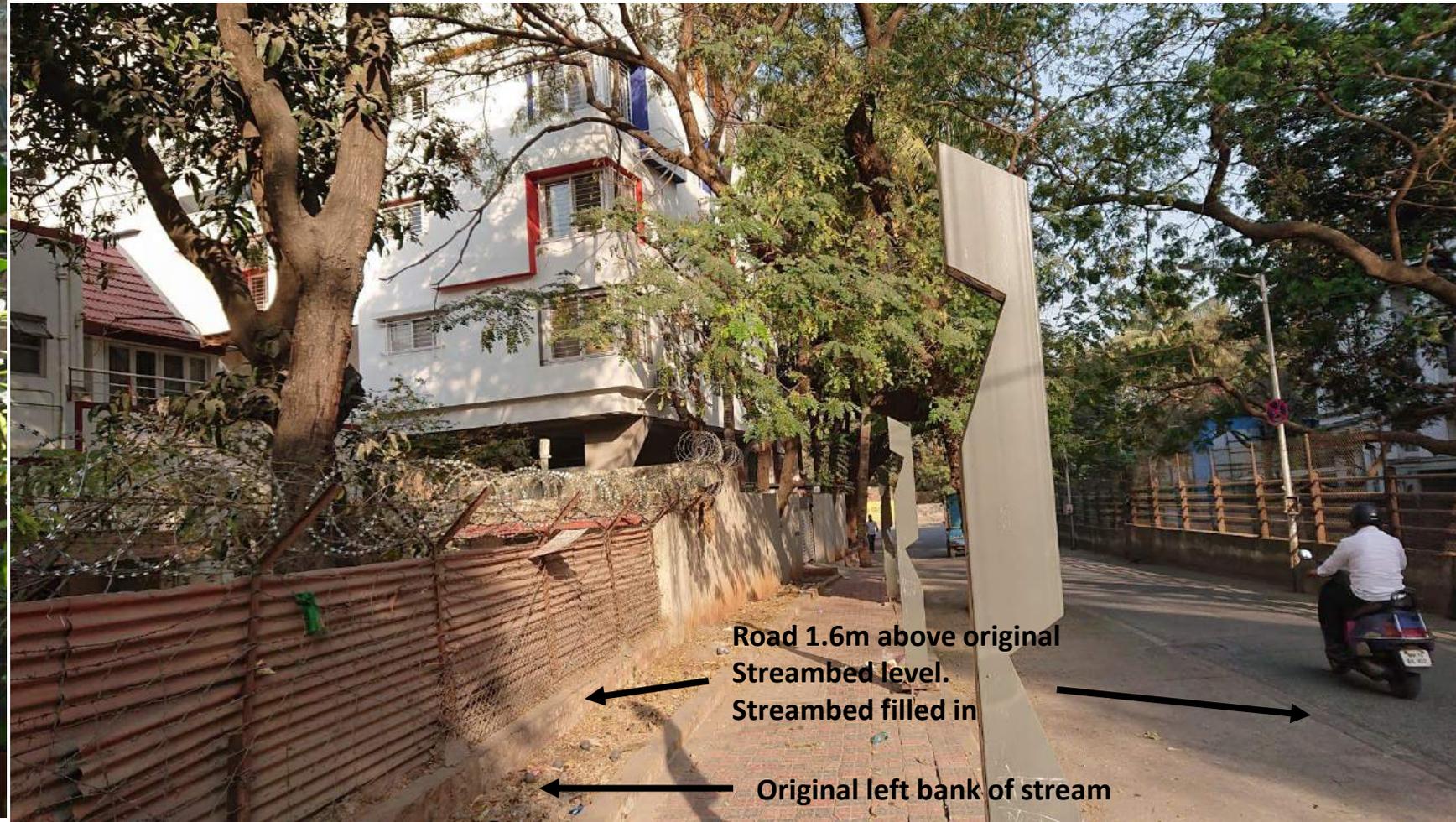




Photo showing the road constructed 1.6 m above Stream lining by filling in stream bed

26.12.2020 13:02



Photo dated 2nd January 2021
Showing garbage and pigs on the
stream bed



Photo garbage and pigs on the stream lining