Abstract Template

Title: Meeting the Post-Paris Climate Challenge from a Sustainable Land-Use perspective: Urban Greening Corridors as Co-benefit infrastructure for Greenhouse Gas (GHG) mitigation and adaptation

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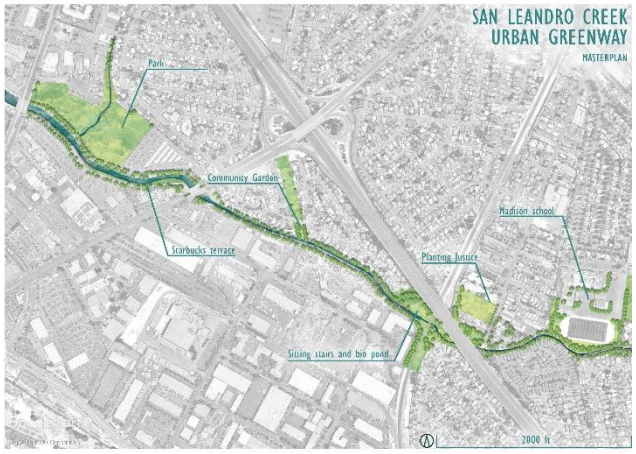
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Keywords: Urban climate mitigation and adaption, Urban greening infrastructure, Sustainable Land-use planning

I. Abstract Body (up to 250 words)

The 2017 Paris Climate Accord (Paris Agreement) sets measurable benchmarks for avoiding unsustainable climate catastrophe. This is an international challenge, but actions take root locally. California is a worldwide leader in aggressive GHG-reduction policies steering billions of dollars for "Climate Investment" projects. From a local perspective, there is a challenge of developing projects that create a sufficient impact in GHG mitigation commensurate with global goals. Planners struggle between the interests of "business-as-usual" economics versus transformative actions. We highlight, distinct from typical energy-efficiency approaches, an approach of establishing inter-connected urban greening corridors along utility infrastructure rights-of-way. These corridors are often outside the domain of private development but are strategically woven throughout the urban fabric. These corridors can function as critical GHG sinks and as a foundation for alternative active transit. The recently funded San Leandro Creek Urban Greening Project (in Oakland, California) will sequester 1082,79 MtCO2e of GHG via a dense corridor of trees, vegetated swales and green spaces along a one-mile creek-side zone and reduce 60,82 MtCO2e of GHG by establishing a new bicycle/pedestrian route off-setting 7859 Average Annual Auto VMT. This project is a template for developing an urban-wide corridor system. Our research demonstrates that 8-10 greening corridors will enable Oakland to meet its climate action goals by 2030 in alignment with the Paris agreements.

II. Image:



III. Reference:

1 Stantec Consulting Services Inc, Circlepoint (2016) San Leandro Creek Trail Master Plan
2 City of Oakland (2012) Energy and Climate Action Plan (updated March 2018) - http://www2.oaklandnet.com/oakca1/groups/pwa/documents/policy/oak069942.pdf
3 Institute for Sustainable Policy Studies and the Oakland Climate Action Coalition (2015) The Oakland Priority Conservation Area and Equity-Based Urban Greening Plan
4 Association of Bay Area Governments. (2013) Plan Bay Area: Strategies for a Sustainable Region.
5 Hough, Michael (2009) Cities and Natural Process: A Basis for Sustainability, 2nd ed.
6 David C. Ralston (2016) Climate Action Planning and Urban Greenways: Weaving Together Sustainability, Health and Resilience
7 Dorottya Bekesi, David C. Ralston (2018) The San Leandro Creek Urban Greenway in Oakland, CA Resilient Infrastructure for Retrofitting the Future Biophilic City

IV. Biography:

Dorottya Bekesi is a graduating landscape architect master student. She has completed her BSc. studies at the Corvinus University of Budapest. Her research into the New National Excellence Program was published in 2017 which is the underline of her master thesis.

Mr. David Ralston has completed his PhD in urban geography from the University of California at Los Angeles. He is a professional city planner and works as a senior policy advisor for the San Francisco BAAQMD. Ralston also serves on the City of Oakland Energy and Climate Action Commission as well as the County Public Health Commission.

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Session name/ number: Climate Change and Sustainability
Category: (Oral presentation/ Poster presentation)
Passport Number: BH78104

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