The American Journal of Interdisciplinary Innovations and Research (ISSN–2642-7478)
Published: September 24, 2021 | **Pages:** 1-3
Doi: https://doi.org/10.37547/tajiir/Volume03Issue09-01

IMPACT FACTOR 2021: 5. 676
OCLC - 1091588944

Increment Of The Overflow Coefficient, Hydrological Reproduction And Dangers Of Flooding In The Oued Fez Upstream

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Journal Website: https://theamericanjournals.com/index.php/tajiir

ABSTRACT

In this sense a methodology was directed dependent on the investigation of: counterfeit normal regions, expanded spillover coefficient (SC), and cutting the space of sub-watersheds with autonomous boundaries that are the premise of the hydrological estimation. The hydrological estimation depends fundamentally on the boundaries of precipitation and on the boundaries separated from the division into sub-watersheds to acquire the pinnacle stream produced by each sub-bowl and afterward the downstream stream. This computation was completed fundamentally on the Oued Fes which is the primary pivot of the hydrography of the city. The equations utilized are those of Macmat, Ziegler, and sane recipe. The consequence of the hydrological reproduction performed on two decimal centennial flood Q10 and Q100 show that the SAÂDIYINE connect interfacing the upstream piece and the diverted piece of the Oued Fes is in pre-immersion in the typical express, the utilization of long term flood makes this pressure driven design unfit to convey top stream making its upstream region generally presented to conceivable flooding.

KEYWORDS

Metropolitan augmentation, overflow coefficient, hydrology, hydrological reenactment, flood.

INTRODUCTION

The metropolitan region is by definition a grouping of exercises and populace, which the significance conditions the intricacy of various supplies to execute. As far as seepage of water, as in numerous spaces, the issues and practices are frequently controlled by the size of the

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agglomeration, and significantly contrast from one city having a couple thousand individuals to a megalopolis counting a huge number.

Metropolitan augmentation and land artificialization are a significant and effective enigma since they are counter to various key standards of practical advancement which supporters keeping away from irreversibility, to decouple development monetary asset, and to pay the genuine expenses. Nonetheless, the course of never-ending suburbia happens contrary to these three standards.

The geography of the city of Fez is described by the presence of lacustrine limestone, mud limestone tuffs and aggregates on set, residue in the alluvial porches of the Sebou Valley, travertine, marls, and combinations in the valley, flotsam and jetsam of limestone slants, limestone, sandy topsoils, tuffs and combinations on north coating reliefs, and blue marls modified on the southern slopes.

The hydrology of the Fez area is described by a hydrographic framework zeroed in on _ Fes which streams from West to East, from its wellsprings of Ras El Mama to Sebou crossing the old medina of Fez, the Oued Fes gets a few feeders all through its way towards the Sebou waterway, and are taken care of by resurgences of groundwater as the Oued Mahraz, Oued Miyet and Boufkrane, and others that channel basically spillover water: Oued Mellah, Oued Smen, and Oued Ain chkef. It is restricted toward the north by the line of edges relating to the pre-Rif wrinkles, toward the west by the bowl of Oued Nja, on the east by the Sebou bowl and southerly by the precipices of the Center Chart book Causse Immouzer.

Spillover Coefficient

The overflow is the part of precipitation that doesn't penetrate into the dirt and doesn't dissipate into the air. When the vegetation maintenance abilities and dirt is soaked, this part streams on a superficial level prior to arriving at the waterway framework straightforwardly or through a fake venting framework.The objective of this progression is to concentrate on the expanded overflow coefficient; to do this We depended on the guide of land use to delimit the regions going through change of regular regions into other fake (Streets, structures, ...), following these means:

- Delimitation of normal regions somewhere in the range of 1912 and 2014;
- Delimitation of counterfeit spaces;
- Ascertaining the same overflow coefficient;

Delimitation Of Sub-Watersheds

To assess the stream produced by a precipitation, it is important to partition the review region in watersheds that are characterized as a geographic region depleted by a waterway, an Oued or even fake wastewater canalization with autonomous qualities (stream, overflow coefficient surface ....)

- Have a thought regarding the ways of various drop fell on a waterproofed surface;
- Delimit the sub-watersheds;

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- Pull the estimation boundaries for each SBV in particular region length.

The review and the hydrological reproduction were applied to two distinctive return periods Q10 and Q100. The outcomes showed that during long term flood Q100 the pressure driven design SAÂDYINE which is just a scupper of triple openings can not convey top streams, this stream rate is a lot higher than its basic stream, which makes its upstream region generally presented to conceivable flooding and the presence of a shallow plain along the Oued highlights the danger and makes this region generally presented to flooding and stagnation of tempest water. The aftereffect of the reproduction of flood fields shows the presence of an overwhelmed space of around 1.42 km². The spread of the surface that can cover the flood Q10 shows up at 0.49 km² is 34.50% of the absolute surface of the floodplain, this spread was essentially due to the stagnation of water and spillover with the presence of gloom zones advancing their stagnation, by against the construction to Q10 will actually want to conveying the pinnacle stream in Q10, while for the pinnacle stream Q100 , the pressure driven design present an immersion can not conveying the stream and within the sight of zones of misery, the outer layer of the inevitable flood Q100 is roughly 0.86 km² is 60.56% Surface whole floodplain. The normal elevations covering the right bank of the Oued is about 375.33m, while the left bank is of the request for 372.48m, which clarifies the expansion of the flood favoring the left bank that towards the right bank.

CONCLUSION

To relieve the present circumstance we would have response to two unique arrangements: upstream danger the board or downstream danger the executives, the principal will connect with the option stormwater waste arrangements, while the subsequent will be founded basically on adding security openings in the water driven design SAÂDYINE. The expansion of the openings at the design is by all accounts the most financially down to earth since it is more affordable arrangement looked at.

REFERENCES

1. S. Ghemawat, H. Gobioff, and S.-T. Leung. The Google file system.In SOSP, 2003.
2. L'hydraulique mediévale de fès et de sa région, chapitre i. Fès : le lieu et les hommes.
3. Leruissellement urbain et les inondations soudaines : connaissance, prévention, prévision et alerte, ministère de l'écologie de l'énergie du développement durable et de l'aménagement du territoire, Février 2009.
4. S. Babu. Towards automatic optimization of Map Reduce programs. In SOCC, 2010.