

Privatization of Flood Insurance

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NFIP Privatization Developments



NFIP Recent Historical Developments

- Biggert-Waters Flood Insurance Reform Act (2012)
 - Actuarially sustainable rate mandate
 - Remapping
 - Revisit grandfathered properties
- AIR & Guy Carpenter won RFPs in 2013 to create and validate a U.S. Inland Flood model for the NFIP
 - AIR had been actively developing the U.S. Flood model for several years
 - Both AIR and Guy Carpenter had temporary access to **ALL** NFIP policies and claims
- HO Flood Insurance Affordability Act (2014)
- NFIP releases RFP for potential reinsurance placement (2016)

Differences Between NFIP and HO3 Policies

- NFIP does **Not** cover basements
(HO3 does)
- NFIP uses **Actual Cash Value**
(HO3 uses Replacement Cost)
- NFIP does **Not** cover loss of use
(HO3 does)
- Which is more expensive?
- Does a customer understand what they're buying?

NFIP Market Penetration

Overall market penetration is low
(Only 14% of citizens have an NFIP policy)

- NFIP policies are **REQUIRED** during underwriting if home is in Flood Zone A or V
- Not all counties participate in NFIP
- Banks are currently placed in a position to determine if a policy meets flood requirements
(Banks \neq Insurance Companies \rightarrow **ONLY** accept NFIP policies!)
- Customers become confused with coverage when NFIP \neq HO3

Source: <http://www.iii.org/fact-statistic/flood-insurance>

Things Are Changing

- H.R.2901
 - Passed House 419-0
 - (Banks ≠ Insurance Companies → ONLY accept NFIP policies!)
 - Puts decision of viable flood policies into State Insurance Commissioners' office
 - Different deductibles
 - Different limits
 - Different terms & conditions (like replacement cost, basements...)

Modeling

- AIR has the only event based probabilistic model for inland flood peril that covers the continental 48 states.
- AIR had the opportunity to use 35 years of NFIP detail data to calibrate the model for an RFP.
- AIR has created probabilistic flood maps for the continental U.S., independent of FEMA maps.
- AIR's probabilistic model includes modeling on- and off-plain flooding, including all major and minor rivers and their tributaries, with over 1.4 million miles of riverine systems.

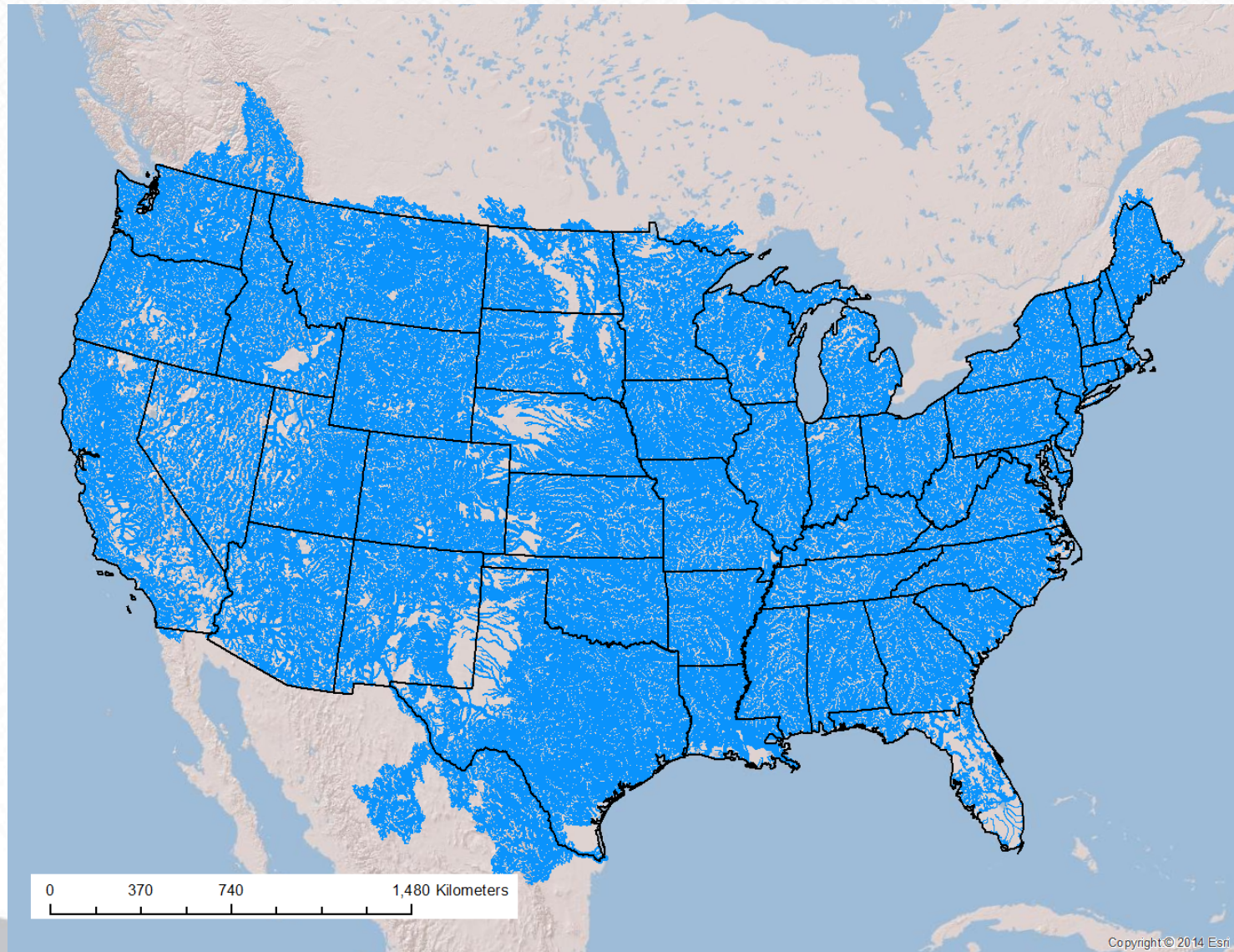
Challenges with Privatization for the Insurance Industry

- Not all counties have recent maps / participate in NFIP.
- Odds are, there is a map somewhere in the U.S. that changed today.
- Will a bank accept an insurance policy in proxy of the NFIP to cover Flood?
 - Even if different deductibles / limits offered?
 - Even if policies cover more? (RV, Coverage D, Basements)
- How can WYOs interact with traditional companies?
- How can detailed claims / policy information be utilized for rating?

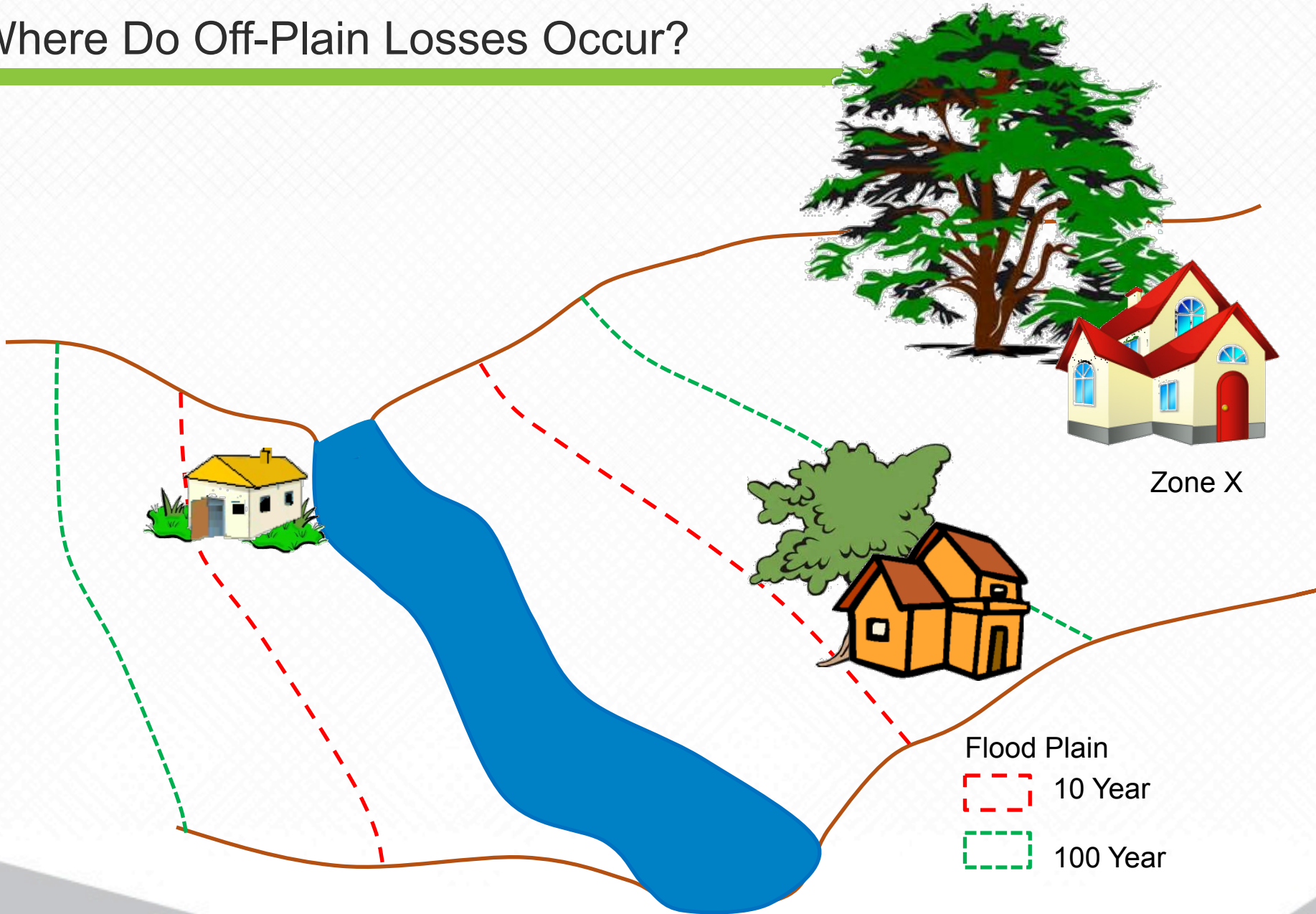
AIR U.S. Inland Flood Model



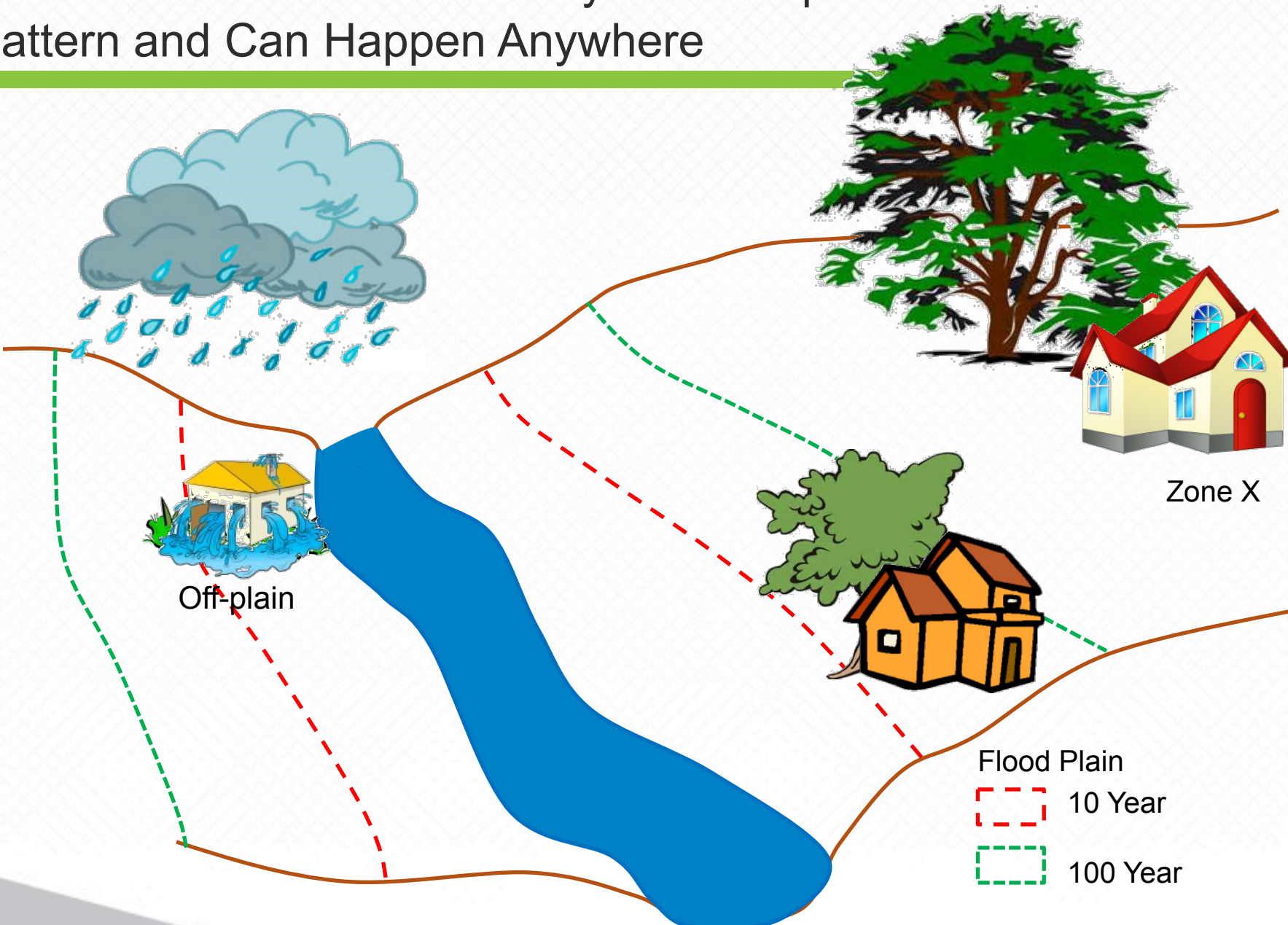
A Model That Is Robust at Multiple Scales Is Necessary for Developing Accurate Views of Risk



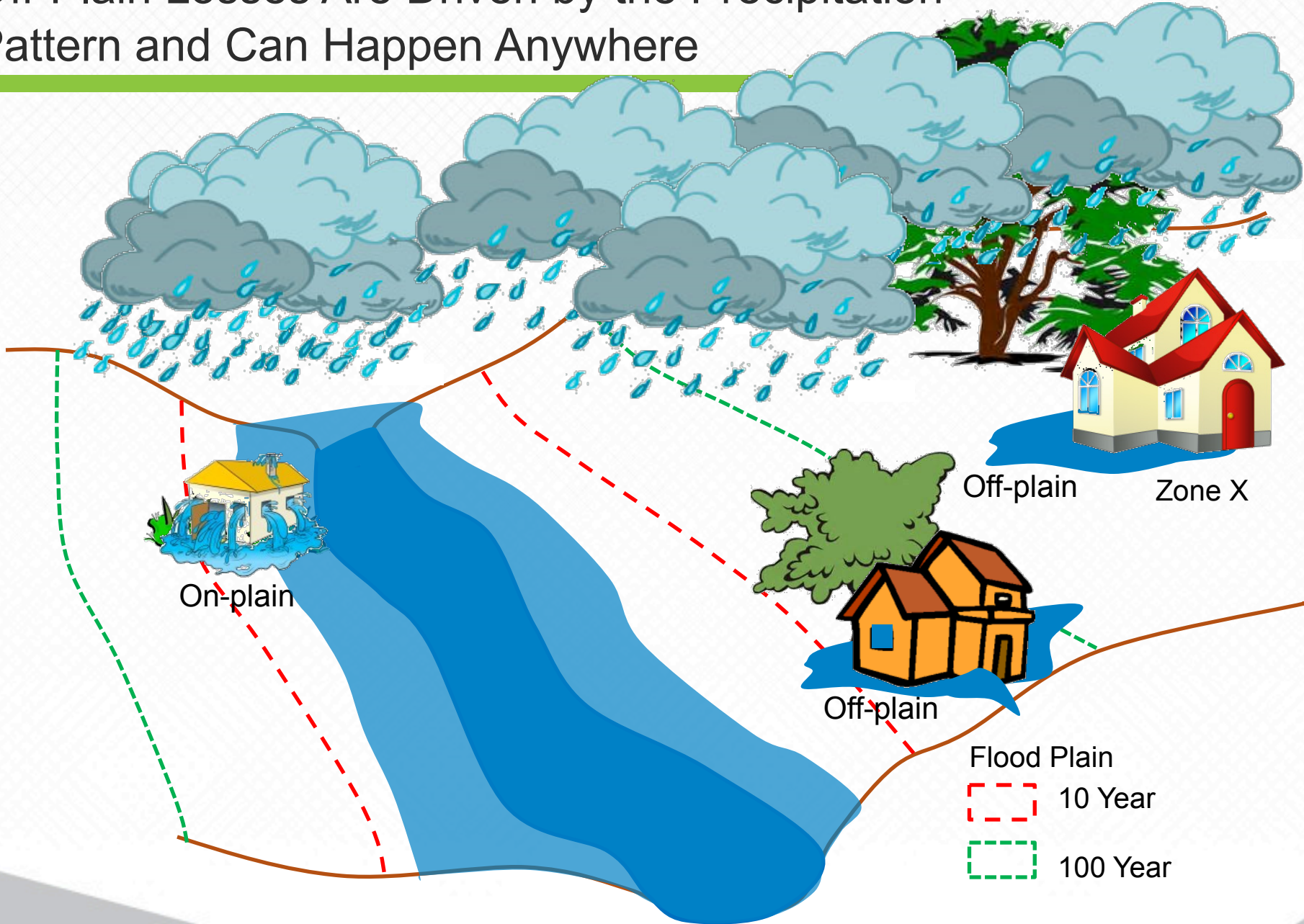
Where Do Off-Plain Losses Occur?



Off-Plain Losses Are Driven by the Precipitation Pattern and Can Happen Anywhere



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On-plain

Off-plain

Zone X

Off-plain

Flood Plain

10 Year

100 Year

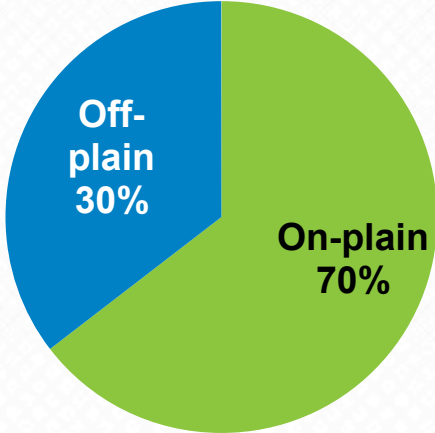
Off-Floodplain Losses Are Significant



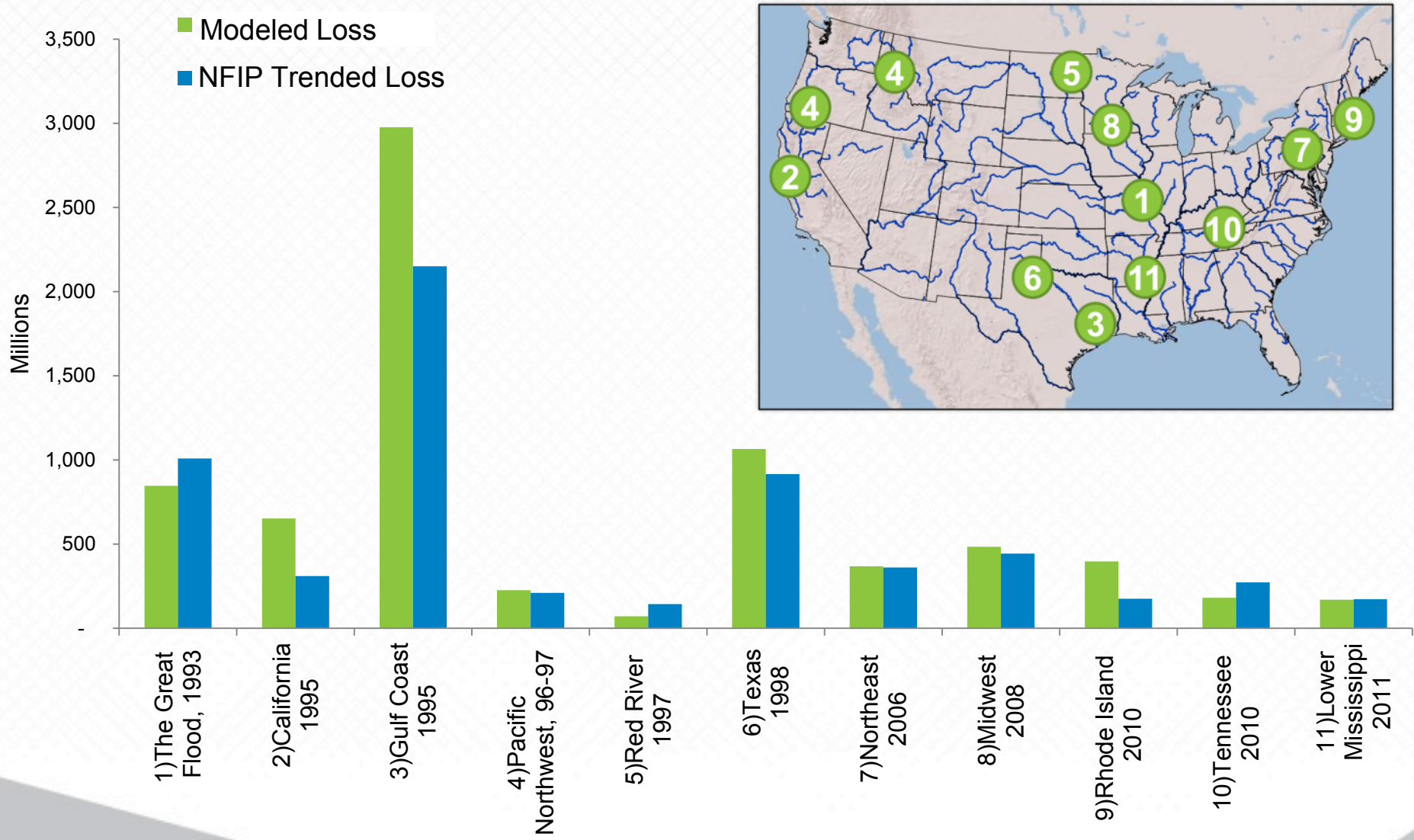
Flash Flooding in Kansas City, MO, May 31, 2013

Courtesy: KSHB

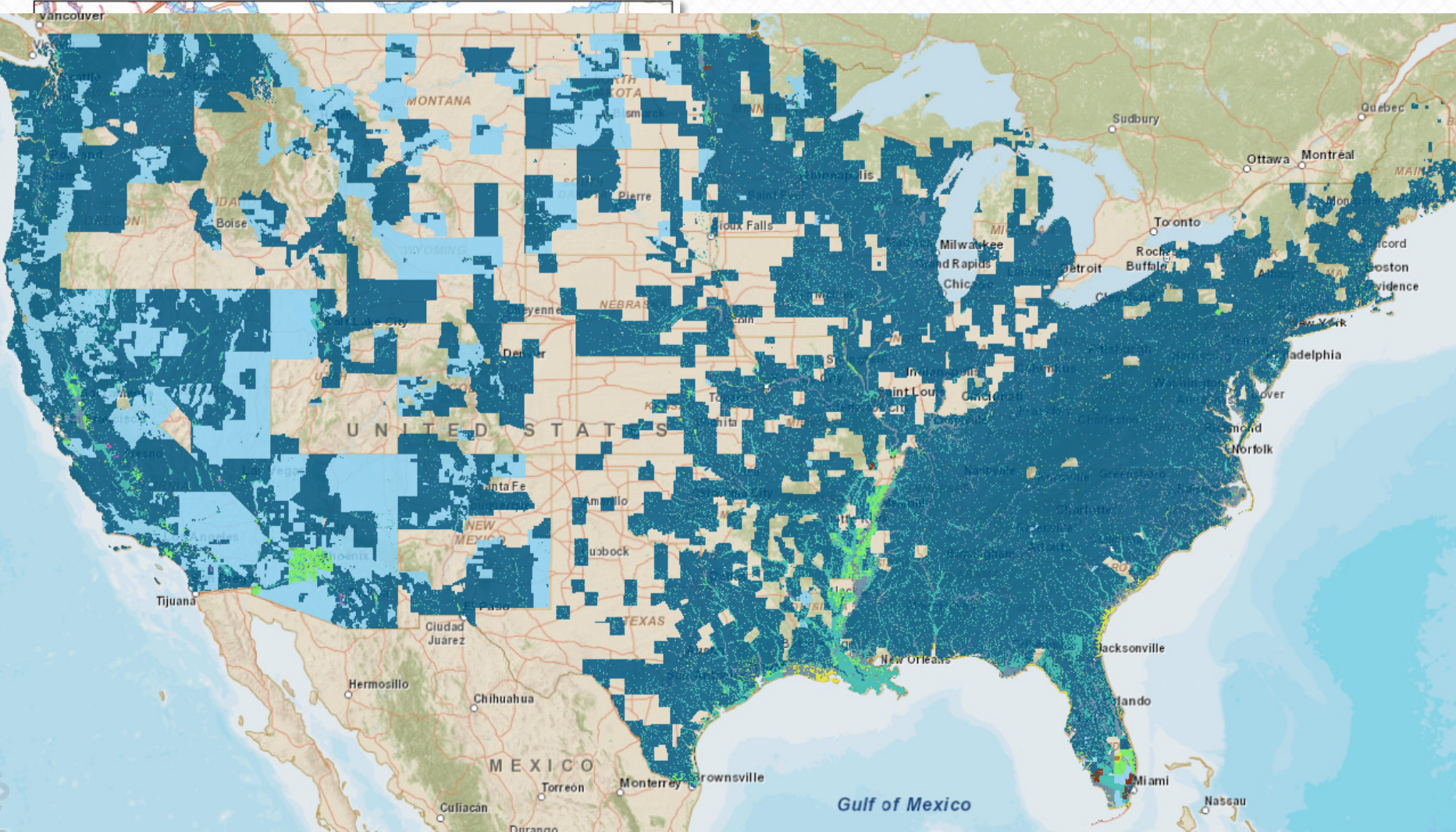
Average Annual Losses



Comparison of Model and Trended NFIP Losses for All Marquee Events



FEMA Flood Maps End at Administrative Boundaries



Source: Esri, DigitalGlobe, GeoEye, IGN, Aerogram, GEBCO, CNES/Airbus, USDA, USGS, AEX, Getmapping, Aergrid, IGN, IGP, Swisstopo, and the GIS User Community

Questions?

