

KENAI RIVER FLOOD STUDY

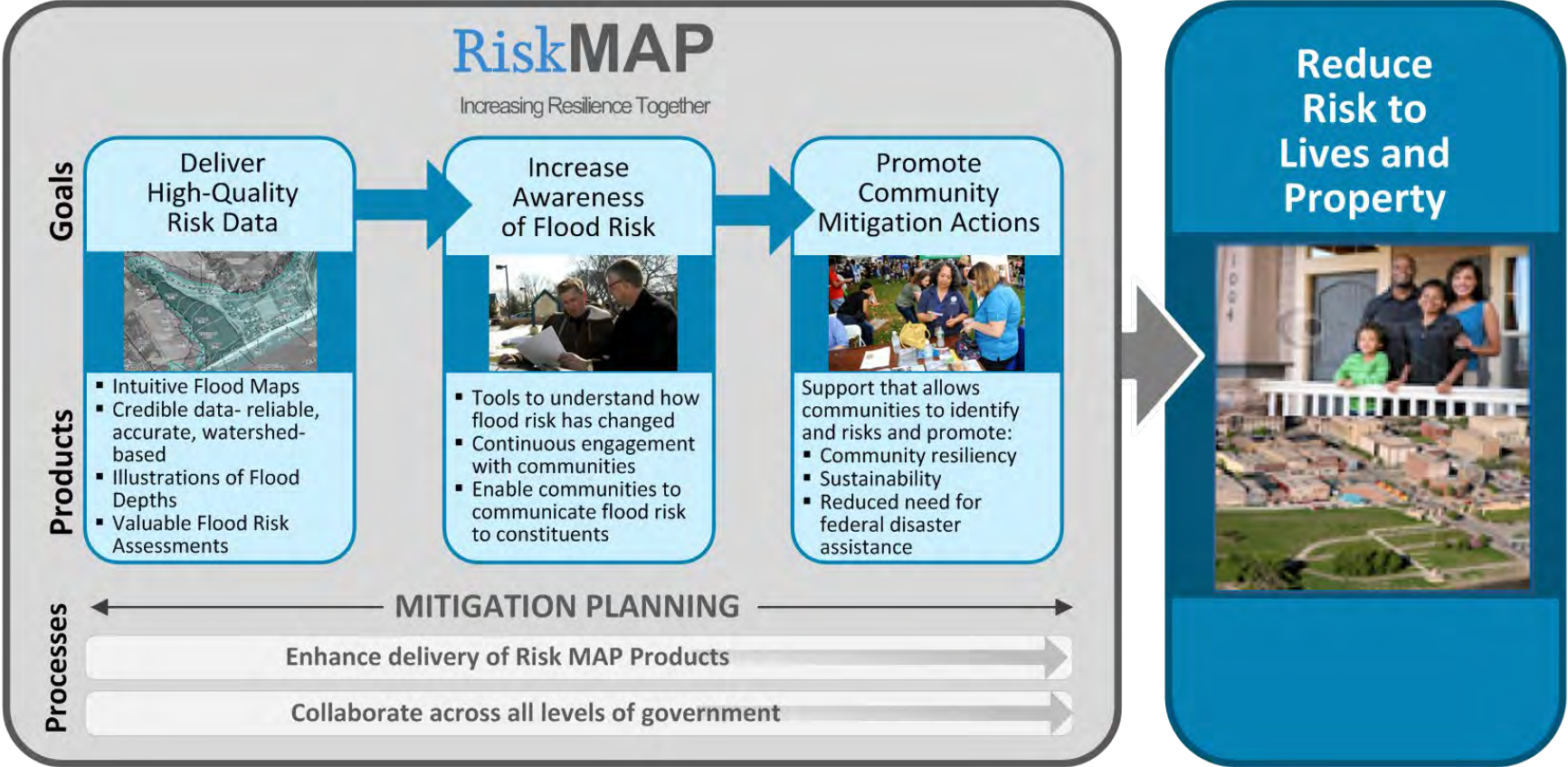
Flood Risk Review | March 21, 2022

Planning Commission Briefing



FEMA

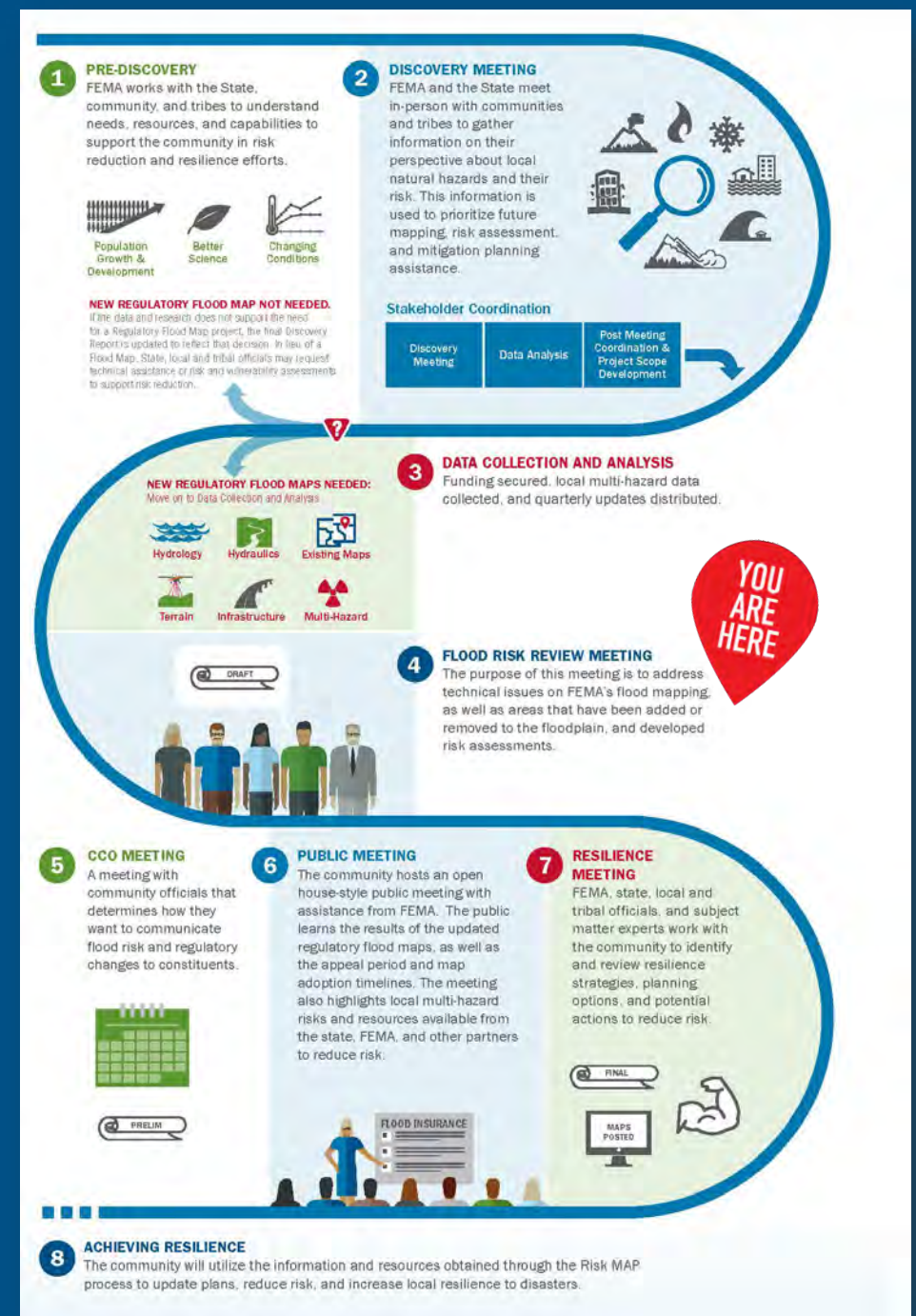
RiskMAP, The NFIP & Hazard Mitigation Planning



FEMA

Risk Mapping, Assessment & Planning (MAP)

- Risk MAP supports community resilience by:
 - Providing high-quality data
 - Building lasting partnerships
 - Supporting long-term hazard mitigation planning
- Outputs to Risk MAP may be:
 - Regulatory or Non-Regulatory
 - Flood-focused or Multi-Hazard focused



FEMA

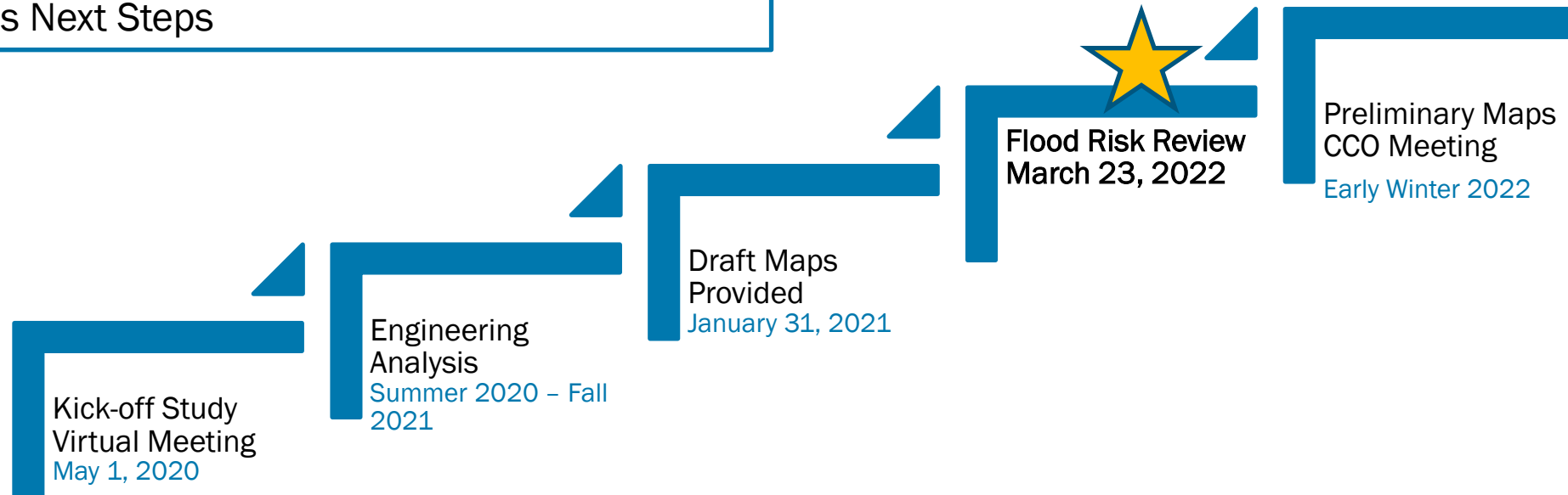
NFIP and the Kenai Peninsula Borough

- Kenai Peninsula Borough participates in the National Flood Insurance Program as well as the Community Rating System
- KPB floodplain maps are not all updated by this study:
 - 1981: Original FIS and mapping
 - 1999: First revision, Big Eddy area
 - 2016: Third revision, Coastal Hazard Analysis
- Purpose of the NFIP: reduce economic loss caused by flood events
- 257 NFIP policies
- \$73 million in property covered
- 75 paid losses (since 1978)
- \$600,000 paid (since 1978)
- CRS Class 9, 5% discount to all policyholders

Study Progress

Flood Risk Review Meeting Objectives

- Review methodology, analysis and draft maps
- Discuss Next Steps



FEMA

Key Responsibilities for NFIP-participating Communities

- Determine whether proposed development activities are in SFHAs
- Review development proposals to ensure compliance with requirements of floodplain management regulations
- Require new subdivisions and development proposals with more than 50 lots, or larger than 5 acres, to include BFEs
- Issue or deny permits for floodplain development
- Inspect all development in SFHAs to ensure compliance
- Maintain records of issued permits, elevation data, inspections and enforcement actions
- Assist in preparation and revision of floodplain maps
- Help residents obtain information on flood hazards, floodplain map data, and compliant construction measures



Scope of Work

USACE – Alaska District

- 1-D detailed analysis for 47 miles, outlet of Skilak Lake to mouth of Kenai River
- Multi-frequency analysis (10%, 25%, 50%, 1% and 0.2%)
- Water surface elevation and depth grids
- 1-ft increment inundation (for gages)

STARR II

- Floodway modeling and mapping



- ✓ National Weather Service developed calibrated model with 1995 and 2012 flood events.



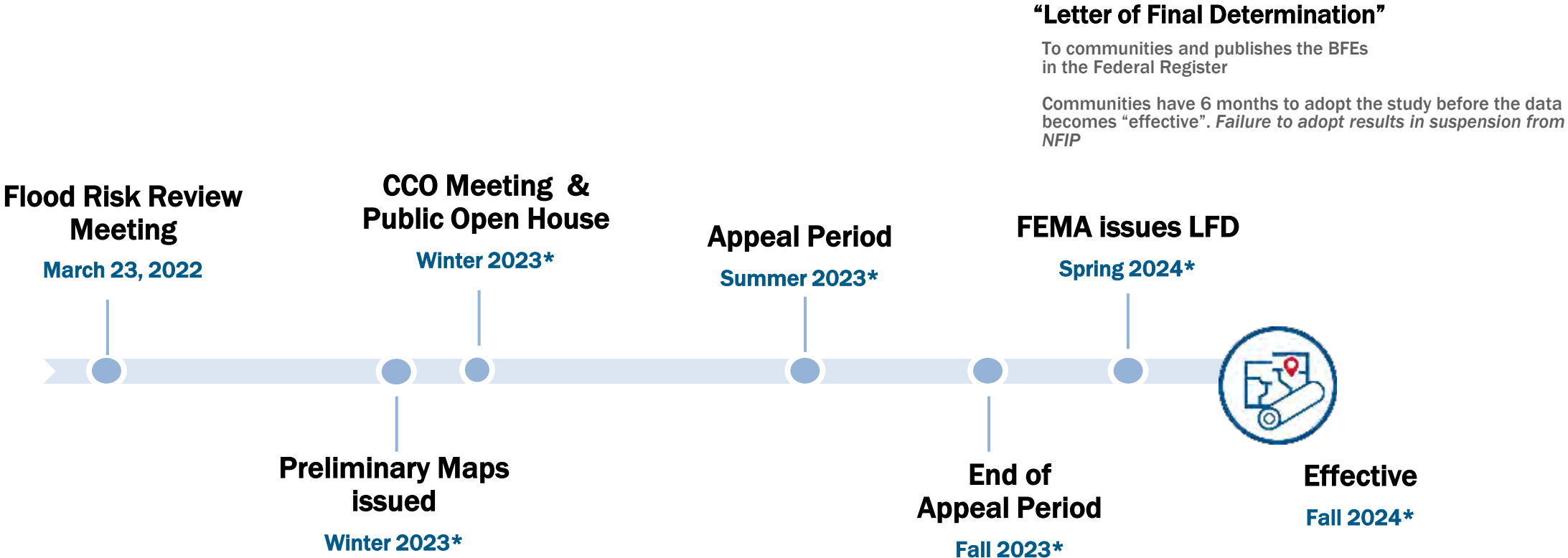
FEMA

Benefits and Uses of Completed Analysis

- Supplement regulatory products (FIRM/FIS)
- Best available information for BFE determinations for development and Letter of Map Amendments. Possibly Letters of Map Revision.
- Can be used for planning efforts – emergency, mitigation, preparedness, land use, and capital improvements
- Provide data to inform Hazard Mitigation Plans
- Models are intended to be upgradable or enhanced. No need to start from scratch.



Project Timelines Toward Map Adoption



* Dates estimated



FEMA

Review Questions

- ❑ Are the new or revised floodplains consistent with your local knowledge of the flooding sources?
- ❑ Is water going somewhere it physically can not go?
- ❑ Are important map elements missing (roads, structures, bridges, culvert, etc.)?
- ❑ Are streams and significant features labeled correctly

Submit comments by April 22, 2022 to:

Wendy Shaw, FEMA Region 10, wendy.shaw@fema.dhs.gov