

# Lead Service Line Inventory



The Village of Hazel Crest

# Lead in Water

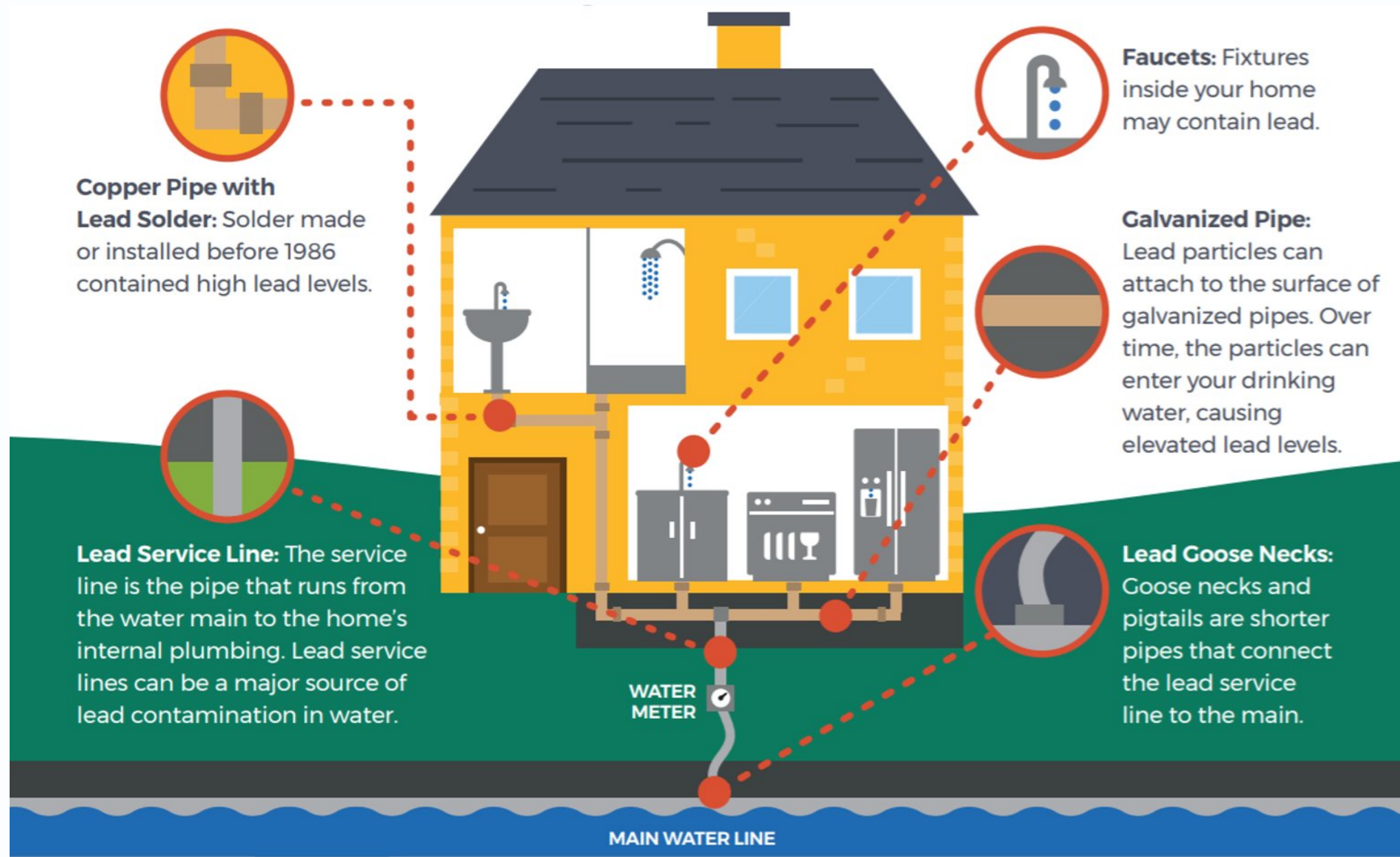
Where does our water come from?

- Lake Michigan, like most Chicago-area communities
- Water is routinely tested per Illinois EPA requirements

Why is Lead Dangerous?

- There is no safe level of exposure to lead
- Children under 6 are most at risk as lead exposure can harm cognitive and physical development

# Lead Service Lines



Residential Lead Service Line Connected to Water Meter

# Why We Started This Work?

## Drinking Water 1-2-3

- Training from Metropolitan Planning Council (MPC) on best practices

Village applied for and awarded MPC technical assistance grant for BMP implementation

## Mandate from Illinois

- Environmental Protection Act amended to require annual reporting of LSL in communities.
- Future legislation may require other steps like publishing the locations of LSL



# Resolution to Take Direct Action to Mitigate exposure to Lead in Drinking Water

RESOLUTION NO. 2020-\_\_\_\_

Hazel Crest Village President and Board of Trustees passed a resolution calling for locating and the eventual removal of lead lines.

- Important first step to outline how the Village will accomplish this goal.

BE IT RESOLVED, that the Village of Hazel Crest will take direct action to mitigate exposure to lead in drinking water; and,

BE IT FURTHER RESOLVED, that Village of Hazel Crest shall conduct a thorough, transparent inventory of all service lines based on probabilistic analysis with further refinement through field verification in partnership with residents when possible. The inventory shall contain information on: the total number of service lines; the material composition of all service lines, with specific attention to lead content, and their location; and,

BE IT FURTHER RESOLVED/ORDERED, that the Village of Hazel Crest shall create a lead service line replacement plan. The plan shall contain: estimated costs of full lead service line replacement; recommendations on cost-saving approaches for lead service line replacement; a prioritization schedule for replacement in vulnerable communities; a financial assistance program that ensures that all low-income households can participate in full service line replacement; a schedule and timeline for replacement; and,

BE IT RESOLVED, that the Village of Hazel Crest shall support state legislation consistent with these village actions

Actionable steps to address Lead from the Resolution

# Service Line Predictive Inventory

## Online Inventory of Lead Locations

- County data, survey responses, IEPA samples, and older Village Documents
- Center for Neighborhood Technology (CNT) used predictive software to match known address with lead to similar households



### Lead Service Line Probability

- **Probability of Service Line**

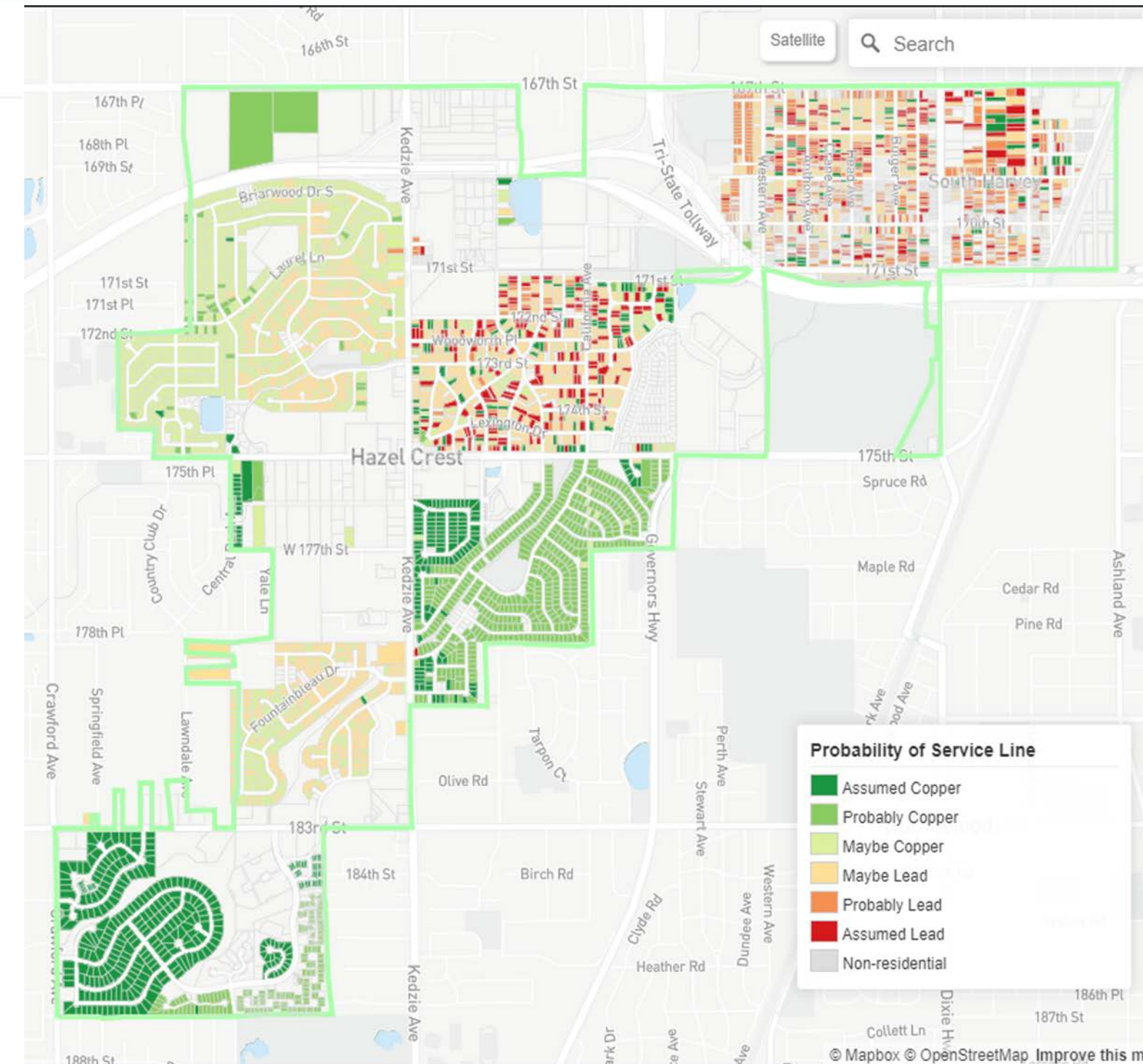
- ☒  Assumed Copper
- ☒  Probably Copper
- ☒  Maybe Copper
- ☒  Maybe Lead
- ☒  Probably Lead
- ☒  Assumed Lead

### Model Inputs

- ☐ Residential Type
- ☐ Median Income
- ☐ Estimated Year of Construction
- ☐ Estimated Property to Land Value Ratio
- ☐ Estimated Property Value
- ☐ Distance to Nearest Fire Hydrant (feet)
- ☐ Stamped Year on Nearest Hydrant
  - ☐ Hydrants by Stamped Year

### Priority Areas

- ☐ Families with Children  
Exclude parcels with a probability of:
- ☐ Assumed Copper
  - ☐ Probably Copper
  - ☐ Maybe Copper
- ☐ Max Lead Reading





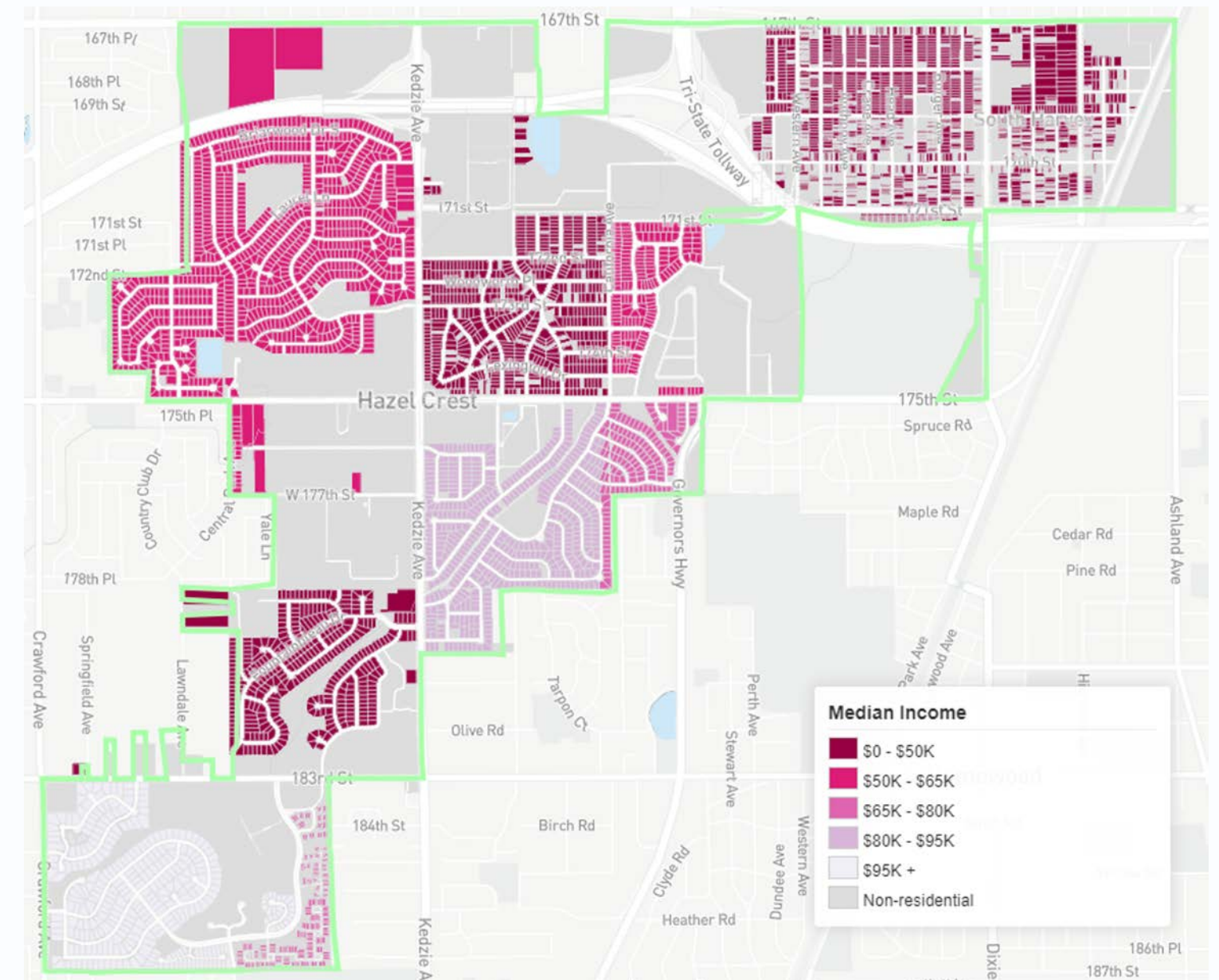
# Equitable Planning for Removal

## Lead Service Line Replacement Plan

- Finalizing replacement plan with MPC
- Plan will include replacement priorities: income level, homes with children, blocks of concern, etc.
- Replacement Schedule and sources of funding will also be determined

## Develop and promote educational material

- Website development and televised interview



Filtering Hazel Crest Households by income to determine high priority locations for replacement.

# What is Left to do?

## Implement Replacement plan

- Secure sources of funding and create a structure for residents to finance replacement
- Determine blocks of high priority for initial replacement
  - High density of intersecting variables like lead, income, and homes with children

## More Outreach

- Every inspection of a home's water line improves our statistical model
- More cooperation = more success