Confronting our Agricultural Nonpoint Source Control Policy Problem

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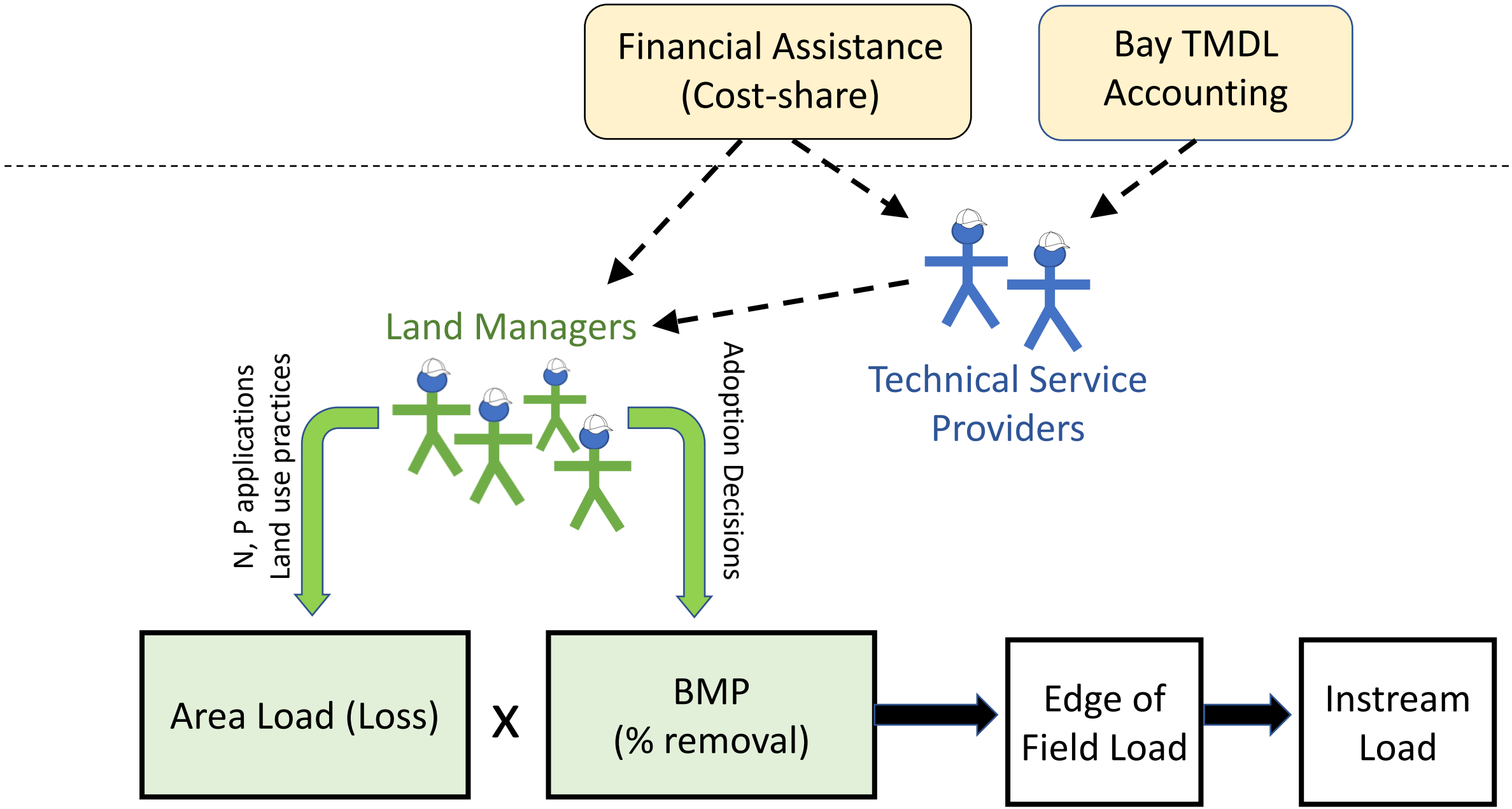
Overview

- Conventional agricultural cost-share programs have not generated the scale and type of changes needed to achieve Chesapeake TMDL goals.

- Lack of progress is just limited by funding but by the limitations of existing cost-share, practice-based programs

- Significant progress on ag nonpoint pollution requires policy innovation


Financial Assistance (Cost-share)
Bay TMDL Accounting
Land Managers
Technical Service Providers
N, P applications
Land use practices
Adoption Decisions
Area Load (Loss)
X
BMP (% removal)
Edge of Field Load
Instream Load

Suppose a farmer could install a BMP that reduced nutrients for $5/lb/yr, but the BMP provided the farmer no agronomic benefits and had sizable upfront costs.

Why would a farmer make that investment?

Suppose a technical service provider could work with 2 neighboring farmers. One farmer has low nutrient export and is an eager adopter. The other farmer has high nutrient export and reluctant adopter.

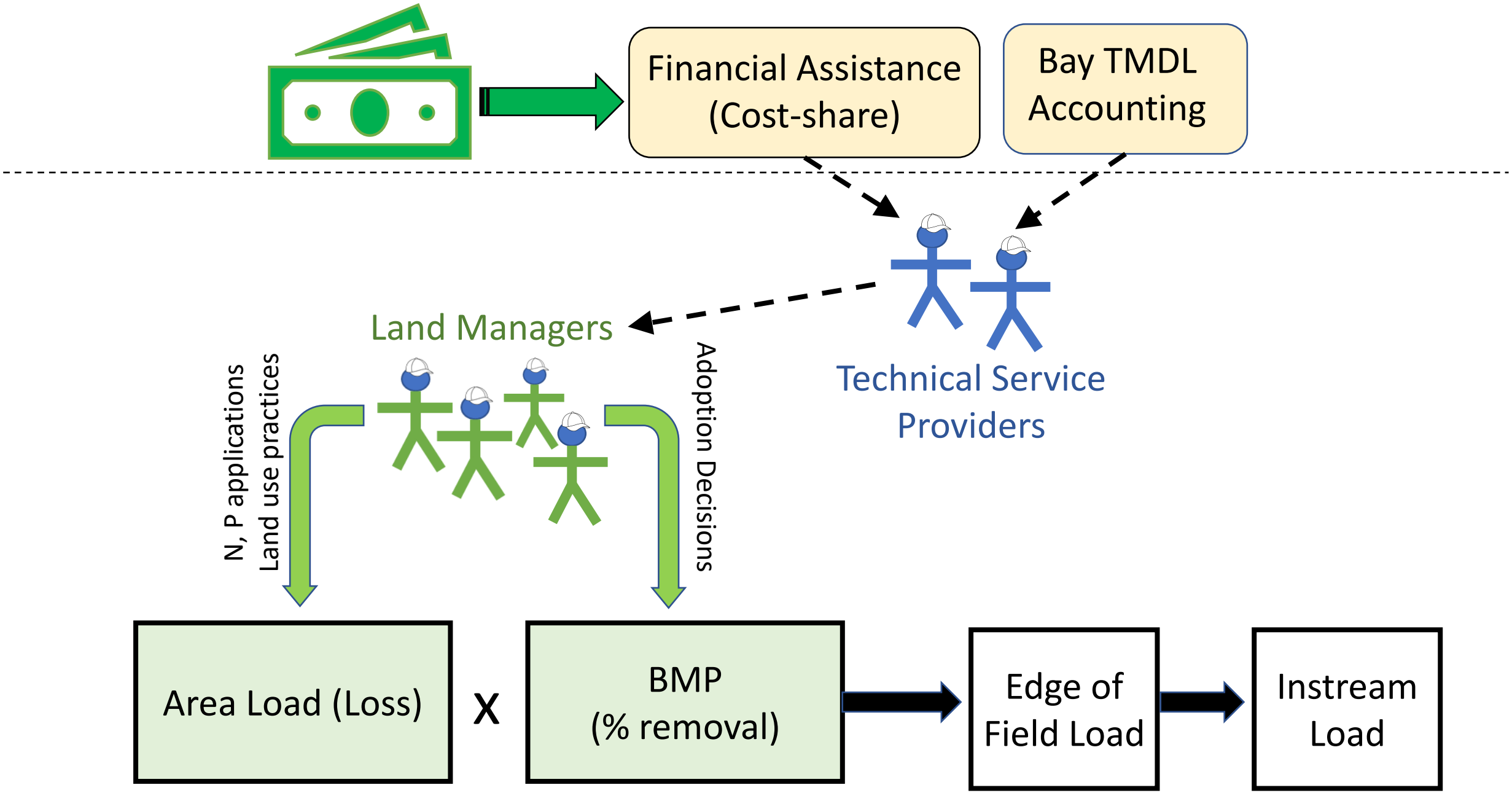
Who will the service provider most likely work with?

Suppose 80% of nutrient losses from a 300 acre farm comes from 40 acres.

Does the CBP and supporting technical/financial assistance programs provide incentives for that farmer to search and treat those 40 acres?

Suppose an entrepreneur developed a BMP that provided high degree of certainty in generating pollutant load reductions.

Who is willing to pay more for certain outcomes?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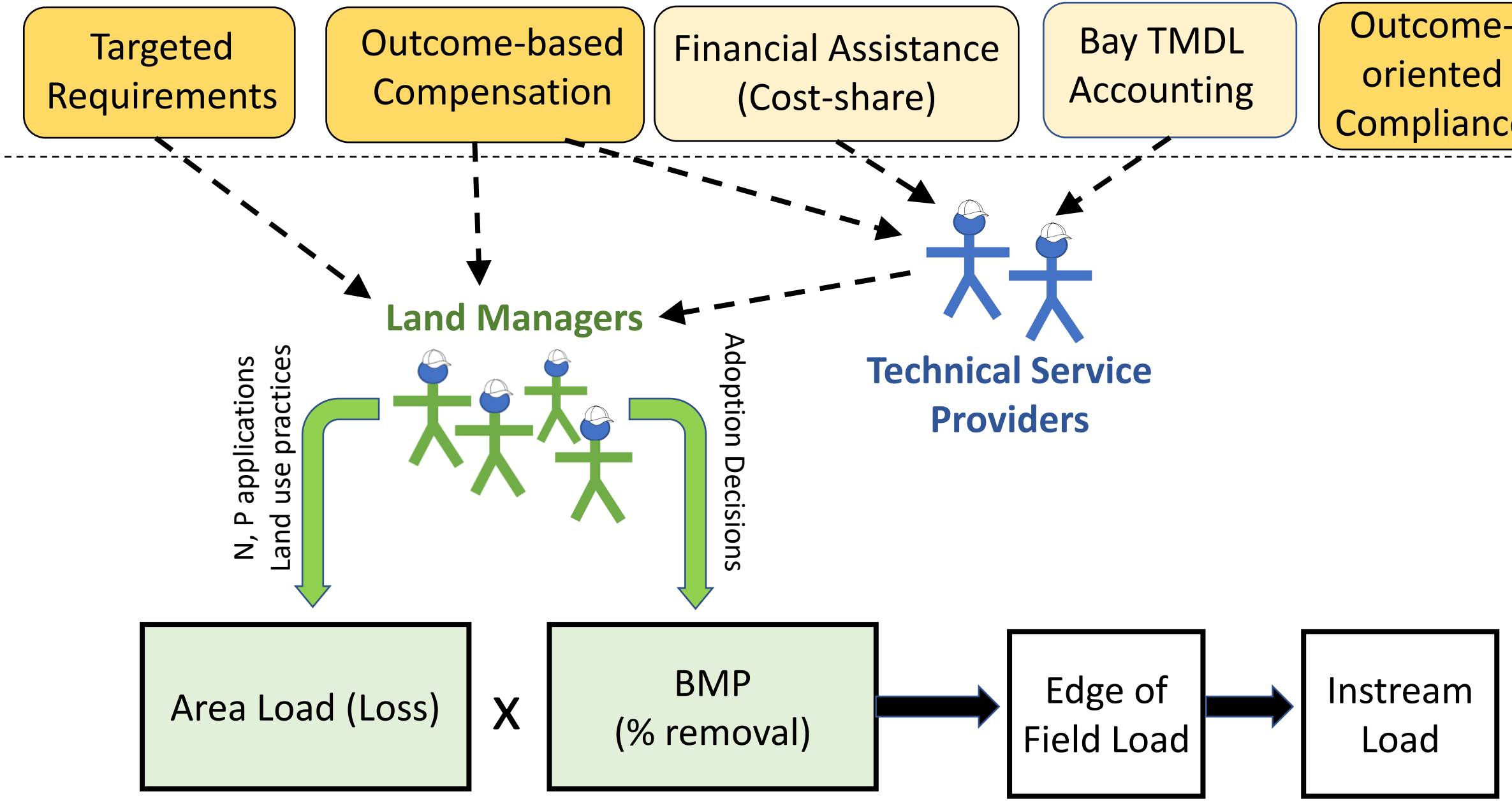
Targeted Requirements
Outcome-based Compensation
Financial Assistance (Cost-share)
Bay TMDL Accounting
Outcome-oriented Compliance
Land Managers
Technical Service Providers
N, P applications
Land use practices
Adoption Decisions
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Summary

Focus on outcomes rather than practices

Devote resources to high impact opportunities

Willingness to develop and try alternatives

For more details…

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Shortle, J.S., M. Ollikainen, and A. Iho. 2021. *Water Quality and Agriculture: Economics and Policy for Agricultural Nonpoint Source Water Pollution*. Cham: Springer Nature.