**Fish Tagging Forum**
**Draft Compilation of Tagging Infrastructure**
**2012_11_06 v0**

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One of the items we have been discussing is infrastructure associated with the different tagging/marking technologies. Infrastructure impacts cost considerations as different technologies have different infrastructure requirements. We have also discussed that there is coordination/sharing of infrastructure across tagging technologies that must be considered as we contemplate recommendations.

Enclosed is a one page diagram (11x17 format) that depicts tagging related infrastructure requirements/investments at the various life-cycle stages. We have populated the diagram with example content that was either discussed in the Forum or easily gleaned from internet research (e.g., PTAGIS site). As with other synthesis documents I have shared, this is merely a starting point for the Forum participants to add, subtract, or clarify. The ultimate work product needs to reflect the knowledge of the Forum participants. A couple key notes regarding the diagram:

1. In reality, the system may not be as simple and compartmentalized as a diagram like this depicts. That said, I believe we need some reasonably accurate means to demonstrate similarities and differences across tagging technologies.
2. Data management infrastructure is intentionally omitted from this diagram. We have a similar, but separate Data Management diagram that we are developing as a framework for capturing/communicating data collection and management related information.
3. Fish handling is depicted on this diagram. This seemed like a reasonable spot to illustrate where the fish are handled throughout the tagging lifecycle.
4. Labor has not been explicitly communicated in this diagram, however the human infrastructure associated with tagging is likely a significant component of tagging related costs as well as a source of coordination opportunities. In some ways, the depiction of handling is a partial indicator of more labor-intensive components of the tagging life-cycle. We should discuss how/if the labor component of tagging technologies is captured and communicated.

It would be great to get your input and/or questions and recommendations related to the attached diagram by **November 27**. Please call or email if you want to discuss your thoughts directly.
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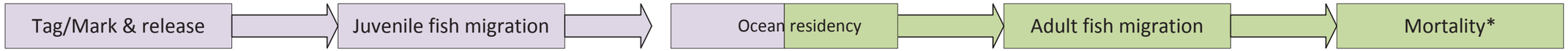
# Infrastructure Required for Tag/Mark Application, Detection, and Recovery

## DRAFT: Example content pending input from Fish Tagging Forum subject matter experts

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|---|---|---|---|---|---|
| Adipose fin clip | Marking trailers | N/A | N/A | N/A | N/A |
| Acoustic | Tags, trailers, smolt traps | Autonomous receivers, mobile tracking units, cable arrays | Autonomous receivers, detection wands | Autonomous receivers, mobile tracking units, cable arrays | N/A |
| Genetic | Juvenile: N/A<br>Broodstock: sampling equipment, lab processing | Sample collection equipment, lab processing | *Sample collection equipment, surface trawls, lab processing* | Sample collection equipment, lab processing | Sample collection equipment, lab processing |
| CWT | Tags, trailers, marking machines, handheld injectors | N/A | N/A | N/A | Snout collection equipment, detection wands, lab processing |
| Otolith | Insulated box, thermal chilling system, lab processing, smolt traps | N/A | N/A | N/A | Sample collection equipment, lab processing |
| PIT | Tags, trailers, smolt traps, tag application equipment | In-stream arrays, dam arrays | *Surface trawls* | In-stream arrays, dam arrays, handheld detection wands | Handheld detection wands, flat plate antennas, pole mount antennas |
| Radio | Tags, smolt traps, tag application equipment | Aerial and underwater antennas, mobile tracking units | N/A | *Adult counting weirs, tags, mobile tracking units* | *Mobile tracking units* |

*Fish mortality data may be collected at any stage of the fish life cycle from harvest, recovered carcasses, and predators

NOTE: Italicized text indicates data collected outside Fish Tagging Forum materials

Indicates fish handling

Juvenile salmonid

Adult salmonid