# Assess and You Shall Receive
## A case study in the use of Microsoft Apps for assessment and action tracking

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1



Data Input — • Microsoft Forms

Data Visualization — • PowerBI

Data Dissemination — • Power Automate
— • Teams

2

# Data Input – Microsoft Forms

**Benefits**
- Part of the Microsoft ecosystem
- Data security
- Ability to automatically generate score

**Challenges**
- Limitations in customization
- Requires Microsoft 365 subscription

3



# Data Visualization – PowerBI

**Benefits**
- Can pull from multiple data sources
- Improved data sharing/summarizing
- Allows sharing of data while protecting raw dataset from human error/interference

**Challenges**
- Learning curve for use
- Costly licensing
  - No sharing of dashboards in free version

4

## Annual Welfare Assessment Overview

| AREA | Assessment | Total Score | Year | Quarter | Month | Taxon |
|---|---|---|---|---|---|---|
| O&D | Donpaca_Habitat | 20 | 2024 | Qtr 4 | October | Mammals |
| Domain | Cougar_Group | 20 | 2024 | Qtr 4 | December | Mammals |
| African Pavillion | Naked mole rats_Group | 20 | 2024 | Qtr 4 | December | Mammals |
| WHC | Eastern Massasauga Rattle Snakes_Winter_Group | 20 | 2025 | Qtr 1 | January | Reptiles |
| O&D | Tortoise_Habitat | 20 | 2025 | Qtr 1 | February | Reptiles |
| O&D | Uromastyx_Fran | 20 | 2025 | Qtr 1 | February | Reptiles |
| Indomalaya | Arc deco pond _Habitat | 20 | 2025 | Qtr 1 | March | Fish |
| Indomalaya | Boney Tongue Tank _Group | 20 | 2025 | Qtr 1 | March | Fish |
| Australasia | Kookaburra_Group | 20 | 2025 | Qtr 1 | March | Birds |
| African Pavillion | Gorillas_Family | 19 | 2025 | Qtr 1 | January | Mammals |
| Americas | Marine Room_Group | 19 | 2025 | Qtr 1 | January | Inverts |
| Americas | Parrot_Group | 19 | 2025 | Qtr 1 | January | Birds |
| O&D | Snakes_Group | 19 | 2025 | Qtr 1 | February | Reptiles |
| Americas | Ferret_Buzz | 18 | 2024 | Qtr 4 | October | Mammals |
| African Pavillion | Crowned crane_Individual | 18 | 2025 | Qtr 1 | January | Birds |
| African Pavillion | Gorillas_Bachelor | 18 | 2025 | Qtr 1 | January | Mammals |
| Eurasia | Przewalksi Horse Shady_Group | 18 | 2025 | Qtr 1 | January | Mammals |

**YEAR** — All

**AREA** — All

**TAXON** — All

**NEEDS FOLLOW UP** — All

5

## Annual Welfare Assessment Schedule & Status

Deselect all

WHC

Out. Sav.

Australasia

Americas

| Area | Assessment Name | Assigned Q | Range | Year | Quarter | Month | Status |
|---|---|---|---|---|---|---|---|
| Australasia | Australasia Aviary_Group | Q1 | Jan-March | | | | Past Due |
| Australasia | Bettong & Echidna_Habitat | Q1 | Jan-March | | | | Past Due |
| WHC | Blanding's headstart_Group | Q1 | Jan-March | | | | Past Due |
| WHC | Blanding's turtle_Capt Sunshine | Q1 | Jan-March | | | | Past Due |
| Out. Sav. | Cheetah_Holding | Q1 | Jan-March | | | | Past Due |
| Americas | Freshwater_Group | Q1 | Jan-March | | | | Past Due |
| Americas | Owl_Group | Q1 | Jan-March | | | | Past Due |
| Australasia | Red Tailed Black Cockatoos_Group | Q1 | Jan-March | | | | Past Due |
| WHC | Wood turtles headstart_Group | Q1 | Jan-March | | | | Past Due |

**Status** — Past Due

**Assigned Quarter** — Q1

**Percentage Complete**

100%
80%
60%
40%
20%
0%

6

## Annual Welfare Assessment

**Score**

**19**

Assessment Name

Red panda_Group

Year

2025

**Have there been any changes to this animals well-being in the last 12mo?**

SOCIAL ENVIRONMENT;HABITAT;NUTRITION;VETERINARY CARE;BEHAVIOR MANAGEMENT;ENVIRONMENT

**Describe any changes**

new male. hand raising poppy after mom passed. both new to the habitat.

**Is there any aspect of the animal's well-being that this assessment did not capture?**

New house/habitat coming soon!

**Q10) Animals actively consume species appropriate diet and display natural feeding behaviors**

Yes - Positive Evidence

**Q11) Animals are actively engaged with enrichment experiences**

Yes - Positive Evidence

**Q12) Animals demonstrate species-typical diversity in behavior, including positive behaviors**

Yes - Frequently

**Q13) Do animals exhibit abnormal, self-destructive behaviors (stereotypies)**

No stereotypic behavior observed

**Q14) Animals use a wide variety of different locations within the habitat/space/tank**

Yes

**Assessor Comments**

19. Kalden has history of heart issues and is overconditioned. Poppy has good BCS just on the smaller side. The strategy of having Poppy only feeding locations seems to be helping with his weight management

**Q15) Animals have a neutral or positive relationship with keepers**

Yes - Positive/Neutral

**Q16) Adequate reserve/isolation accommodations are available when needed**

Yes - Able to accommodate as needed

**Q17) Animals have access to their primary habitat during their active periods**

Yes - Have access

**Q18) No animals kept in suboptimal holding areas (i.e. nighthouses/dens) for longer than is ideal**

No timesharing/suboptimal housing

**Q19) Animals appear to be in appropriate health condition for their age/sex/season**

Unclear/mixed evidence

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## Annual Welfare Assessment

**Score**

**19**

Assessment Name

Red panda_Group

Year

2025

**WELFARE WINS!**

Successful voluntary ultrasound with Kalden this year! The intro between the two went really well for both of them. Hand raising Poppy and her gaining independence

**Stakeholder Feedback - Assessment**

BH notes: Poppy born (+0.1 sibling); 0.1 Sakura and 0.1 infant both died. Poppy hand-raised, weaned from formula onto adult panda diet (biscuits, bamboo). Poppy was in a quarantine situation for several months while young. Kalden had a shortened risk-based arrival quarantine period – able to go out to main habitat after 2 weeks. Both were secured into house at night until March 2025. Currently have access unless weather conditions contraindicate.

**Proposed Action Item(s)**

**ACTION ITEM 1**

The new bridges for the research project could help increase vertical spaces for them (high/high)

**ACTION ITEM 2**

Work through the high value reinforcer challenge with nutrition

**ACTION ITEM 3**

**Stakeholder Feedback - Actions**

## Action Tracking Overview

| Area | Assessment | Category | Action | Status | Priority | Impact |
|---|---|---|---|---|---|---|
| | | modification | project could help increase vertical spaces for them | | | |
| Eurasia | Snow Leopard_Group | Project | Build a cooling pad for them | Planning | | High |
| Indomalaya | Carp Tank _Habitat | Habitat modification | provide hides for smaller animals that are appropriate for the size of the animals as well as the size of the tank. | Planning | High | High |
| Indomalaya | GOH_Winter_Vishnu | Nutrition/browse | gain access to more browse/silage to help reduce steriotypic behaviour. | Planning | High | High |
| Indomalaya | Red Tailed Green Rat Snake _Individual | Habitat modification | Improve basking opportunities: increase access to hot spot, get a better basking area, add mesh planters with moss to bask. | Planning | High | High |
| Indomalaya | Wrinkled hornbill_Henry_Individual | Project | Get a vestibule built on the outside door to the exhibit. This would allow keepers greater access to train and service the exhibit during peek hrs. | Planning | Low | High |
| Indomalaya | Wrinkled hornbill_Henry_Individual | Project | get a vestibule for the entrance and exit of the building | Planning | Low | High |
| O&D | Donpaca_Habitat | Training | Alpaca voluntary vet care/hoof care/desensitization training | Planning | High | High |
| O&D | Rabbit_Group | Training | Work towards having guests interact with the rabbits | Planning | High | High |
| O&D | Steller's sea-eagle_Group | Habitat modification | Refresh perching this year - the older perches have broken, want more longer ones | Planning | High | High |
| O&D | Tamandua_Group | Management | Breeding? | Planning | Low | Low |
| O&D | Tortoise_Habitat | Training | More training projects with the tortoises | Planning | High | High |

**Updates**

April 2025: Exploring zip line use and perch refresh. Team to contact Kyle during re-perching for zip line installation discussion. Suitable perching material behind cheetah. Team will take a field trip!

Area
All

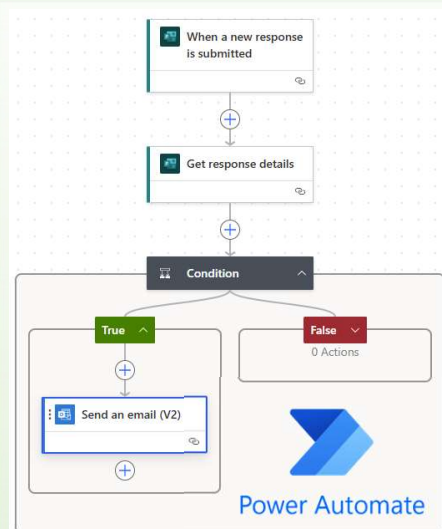Category
All

Status
All

IMPACT VS EFFORT MATRIX

High Impact

**Quick Wins** — Execute right away!

**Major Projects** — Can you reach the same impact with less effort?

Low Effort — High Effort

**Fill-in Jobs** — Can you increase the impact?

**Tasks to Avoid** — Focus on other ideas.

Low Impact

9

# Data Dissemination – Power Automate

- To ensure timely communication, **Power Automate** is used to generate & email summaries of submitted assessments

- Emails triggered by item responses:
  - Flagged behavioural indicator → Behavioural Husbandry Supervisor, Manager of Welfare Science
  - Flagged health indicator → Wildlife Health
  - Flagged nutrition indicator → Nutritionist
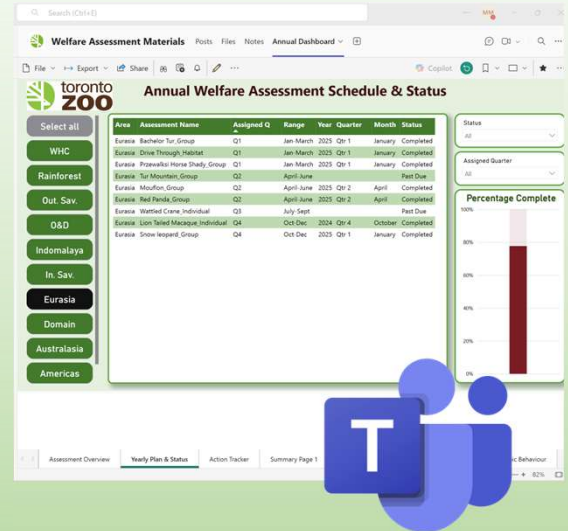  - Taxon category → Taxonomic lead keepers

When a new response is submitted

Get response details

Condition

True / False — 0 Actions

Send an email (V2)

Power Automate

10

## Data Dissemination – Teams

- To ensure data transparency and accessibility, created a welfare assessment hub on teams
- Group composed of all stakeholders
- Group features
  - Links to relevant forms posted
  - Ability to post updates/reminders
  - PowerBI dashboard
    - Assessments & Actions
  - Instructions for printing/downloading any annual assessments & action lists



11

Thank you!

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12